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MAPS

PUNJAB, CIVIL SECRETARIA

PROVINCIAL GAZETTEERS OF INDIA

BOMBAY

VOLUME II

Southern Division.—A Division of the Presidency of Bombay, lying between 13° 53′ and 19° 8′ N. and 72° 51′ and 76° 32′ E., with an area of 24,994 square miles. It comprises the Konkan Districts, as well as Belgaum, Dhārwār, Bijāpur, and North Kanara. During the last thirty years population has increased by 8 per cent.: (1872) 4,693,629, (1881) 4,379,220, (1891) 5,008,063, and (1901) 5,070,692. In the last decade, owing to plague, the increase was only one per cent. The density of population is 203 persons per square mile, compared with an average of 151 for the Presidency. In 1901 Hindus formed 89 per cent. of the population, and Musalmāns 9 per cent., while Jains numbered 73,069, and Christians 35,154.

The area, population, and revenue of the Districts are:—

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Belgaum	4,649	993,976	17,17
Bijāpur	5,669	735,435	15,35
Dhārwār	4,602	1,113,298	27,08
North Kanara	3,945	454,490	10,77
Kolāba	2,131	605,566	13,48
Ratnāgiri	3,998	1,167,927	9,27
Total	24,994	5,070,692	93,12

Kolāba and Ratnāgiri lie in the Konkan, where the rainfall is plentiful; Kanara is half above and half below the Ghāts. The Division contains 50 towns and 7,527 villages. The largest towns are HUBLI (population, 60,214), BELGAUM (36,878, including cantonments), DHĀRWĀR (31,279), GADAG (30,652), and BIJĀPUR (23,811).

The chief places of commercial importance are Hubli and Dhārwār. Bijāpur has many archaeological remains dating from the time when it was the capital of an independent Muhammadan kingdom. SAUNDATTI-YELLAMMA in Belgaum is an important place of pilgrimage.

The Political Agencies shown in the following table are under the supervision of the Commissioner of this Division. The head-quarters of the Commissioner are at Belgaum.

Agency.	Name of State.	Area in square miles.	Population, 1901.	Revenue, 1903-4, in thousands of rupees.
Kolāba	Janjīra	324	85,414	5,04
Sāvantvādi	Sāvantvādi	926	217,732	4,33
Bijāpur	Jath	885	61,868	3,52
	Daflāpur	96	6,797	
Dhārwār	Savanūr	70	18,446	88
	Total	2,301	390,257	13,77

Boundaries, configuration, and hill and river systems.

Belgaum District.—District in the Southern Division of the Bombay Presidency, lying between 15° 22′ and 16° 58′ N. and 74° 2′ and 75° 25′ E., with an area of 4,649 square miles. It is bounded on the north by the States of Mirāj and Jath; on the north-east by Bijāpur District; on the east by the States of Jamkhandi, Mudhol, Kolhāpur, and Rāmdurg; on the south and south-west by the Districts of Dhārwār and North Kanara, the State of Kolhāpur, and the Portuguese territory of Goa; and on the west by the States of Sāvantvādi and Kolhāpur. The lands of the District are greatly interlaced with those of the neighbouring States, and within the District are large tracts of Native territory.

The country forms a large plain, studded with solitary peaks and broken here and there by low ranges of hills. Many of the peaks are crowned by small but well-built forts. The lower hills are generally covered with brushwood, but in some cases their sides are carefully terraced almost to the very summits. The most elevated portion of the District lies to the west and south along the line of the Sahyādri Hills or Western Ghāts. The surface of the plain slopes with an almost imperceptible fall eastwards to the borders of Bijāpur. On the north and east the District is open and well cultivated, but to the south it is intersected by spurs of the Ghāts, thickly clothed in some places with forest. Except near the Western Ghāts, and in other places where broken by lines of low hills, the country is almost a dead level; but especially in the south, and along the

banks of the large rivers, the surface is pleasantly varied by trees, solitary and in groups. From March to June the fields are bare; and but for the presence of the mango, tamarind, jack, and other trees, reared for their fruit, the aspect of the country would be desolate in the extreme.

The principal rivers are the Kistna, here properly called the Krishna, flowing through the north, the Ghatprabha, flowing through the centre, and the Malprabha, through the south of the District. From their sources among the spurs of the Western Ghāts, these rivers pass eastwards through the plain of Belgaum on their way to the Bay of Bengal. They are bordered by deeply cut banks, over which they seldom rise. None is serviceable for purposes of navigation. In the west the rivers and wells yield a sufficient supply of good water; but towards the east the wells become brackish, and the water-bearing strata lie far below the surface. Except the Kistna, which at all times maintains a considerable flow of water, the rivers sink into insignificant streams during the hot season, and the supply of water falls short of the wants of the people.

Geology.

In the south of the District is a narrow strip of Archaean gneissic rock, including some hematite schists of the auriferous Dhārwār series. In the centre quartzite and limestone of the Kalādgi (Cuddapah) group are found, partly overlaid by two great bands of basalt belonging to the Deccan trap system; and in the north and west basalt and laterite occur. Several of the river valleys contain ancient alluvial deposits of upper pliocene or pleistocene age, consisting of clay with partings and thin beds of impure grits and sandstones. In the banks of a stream that flows into the Ghatprabha at Chikdauli, 3 miles north-east of Gokāk, were found some remarkable fossil remains of mammalia, including an extinct form of rhinoceros[1].

Botany.

Of the typical trees of the District, *māti* (*Terminalia tomentosa*), *jāmbul* (*Eugenia Jambolana*), *nāna*, *harda*, *sisva*, and *hasan* (*Pterocarpus Marsupium*) yield valuable timber; *kārvi* (*Strobilanthus Grahamianus*) and small bamboos are used for fencing and roofing, and *kumba* (*Careya arborea*) is in demand for the manufacture of field tools. The *harda* and *hela* (*Terminalia belerica*) furnish myrabolams, and the *shemba* (*Acacia concinna*) supplies the *ritha* or soap-nut which is used in cleaning clothes. The chief fruit trees are the mango, jack, custard-apple, bullock's-heart, cashew-nut, *jāmbul*, *bael*, wood-apple, pummelo, sweet lime, citron, lime, orange, *kokam*, *avla*, *bor*,

[1] R. B. Foote, *Memoirs, Geological Survey of India*, vol. xii, pt. i; and *Palaeontologia Indica*, Series X, vol. i, pt. i.

turan, *guti*, *agasti*, horseradish tree, guava, pomegranate, *papai*, *karanda*, fig, mulberry, plantain, and pineapple. Among creepers the most noticeable are several species of convolvulus; and a large number of English flowers have been grown from seeds and cuttings.

Fauna.

Antelope are found in the north and east. *Sāmbar* deer, wild hog, and hyenas are not uncommon in the waste and forest lands. Of the larger beasts of prey, leopards are pretty generally distributed, but tigers are met with only in the south and south-west. Of game-birds there are peafowl, partridge, quail, duck, snipe, teal, *kalam*, and occasionally bustard.

Climate, temperature, and rainfall.

The moderate heat, the early and fresh sea-breeze, and its altitude above the sea, make Belgaum pleasant and healthy. The lowest temperature recorded is 53° in January, while in May it rises to 100°. The most agreeable climate is found in a tract parallel with the crest of the Western Ghāts between the western forests and the treeless east. The cold and dry season lasts from mid-October to mid-February, the hot and dry season from mid-February to early June, and the wet season from early June to mid-October. The heat of April and May causes occasional heavy showers, attended with easterly winds, thunder, lightning, and sometimes hail. Even in May the nights are cool, almost chilly. Near the Ghāts the south-west monsoon is very constant and heavy. Farther east it is fitful, falling in showers separated by breaks of fair weather. The rainfall at the District head-quarters averages about 50 inches. In the east it is as low as 24, while in Chandgad in the extreme west 107 inches are registered. From March to September the prevailing winds are from the west and south, and from October to February from the east and north.

History.

The oldest place in Belgaum is Halsi, which, according to seven copperplates found in its vicinity, was the capital of a dynasty of nine Kadamba kings. In all probability the Early (550–610) and Western (610–760) Chālukyas held Belgaum in succession, yielding place about 760 to the Rāshtrakūtas, a trace of whose power survived till about 1250 in the Ratta Mahāmandaleshwars (875–1250), whose capital was first Saundatti and subsequently (1210) Venugrāma, the modern Belgaum. Inscriptions discovered in various parts of the District show that during the twelfth and early years of the thirteenth centuries the Kadambas of Goa (980–1250) held part of the District known as the Halsi 'twelve thousand,' and the Venugrāma or Belgaum 'seventy.' The third Hoysala king, Vishnuvardhana or Bitti Deva (1104–41), held the Halsi division for

a time as the spoil of battle; but the territory of the Goa Kadambas as a whole had by 1208 been entirely absorbed by the Rattas. The last of the Rattas, Lakshmideo II, was overthrown about 1250 by Vichana, the minister and general of the Deogiri Yādava, Singhana II; and from that date up to their final defeat by the Delhi emperor in 1320, the Yādavas seem to have been masters of Belgaum and surrounding tracts. During the brief overlordship of the Delhi emperors Belgaum was administered by two Musalmān nobles, posted at Hukeri and at Rāybāg. About the middle of the fourteenth century, the District was partitioned between the Hindu Rājās of Vijayanagar, who held the portion south of the Ghatprabha, and the king of Delhi, who held that to the north. On the foundation of the Bahmani kingdom in 1347 the territories contained in the latter half fell under the sway of that dynasty, which subsequently, in 1473, took the town of Belgaum and conquered the southern division also. During the next hundred years the Vijayanagar Rājās made numerous efforts to recover their territories, in which they were assisted by the Portuguese; but they failed to make any lasting conquests, and were completely overthrown in the battle of Tālikotā (1565). For the next hundred and twenty years Belgaum may be said to have remained part of the territories of the Bijāpur Sultāns. On the overthrow of Bijāpur at the hands of Aurangzeb in 1686, the District passed to the Mughals and was granted as a *jāgīr* to the Nawāb of Savanūr, who subsequently had to relinquish a share to the Nizām. Some part of it, however, appears to have been in the hands of the Marāthās. About 1776 the whole country was overrun by Haidar Alī, but was subsequently retaken by the Marāthā Peshwā with the assistance of the British. In 1818, after a period of great disorder, during which the country was alternately harried by the troops belonging to Sindhia, Kolhāpur, Nipāni, and other chiefs, the country passed to the British and became part of the District of Dhārwār; but in 1836 it was considered advisable to divide the unwieldy jurisdiction into two parts. The southern portion therefore continued to be known as Dhārwār, while the tract to the north was constituted a separate charge.

Archaeology.

Copperplate inscriptions have been discovered at HALSI. The District contains some hill forts, the chief of which are Mahīpatgarh, Kalanidhgarh, and Pārgarh. Scattered temples ascribed to Jakhanāchārya are really Chālukyan, a very fine one being found at Degānve. There is an interesting group of prehistoric burial dolmens, at KONNŪR. Many temples

dating from the eleventh, twelfth, and thirteenth centuries are scattered over the District, of which nearly all were originally Jain but have been converted into *lingam* shrines. The most noteworthy are a group in Belgaum fort; those at Degānve, Vakkund, and Nesārgi in Sampgaon; groups at Huli, Manoli, and Yellamma in Parasgad; those at Shankeshwar in Chikodi, and at Rāmtīrth and Nandgaon in Athni. The finest Musalmān remains are the fort and Safa mosque at Belgaum, and the mosques and tombs at Hukeri and Sampgaon.

The people. According to the Census of 1872 the population of the District was 946,702. The next Census of 1881 returned 865,922, showing a decrease of over 9 per cent., due to the famine in 1876. In 1891 the population increased to 1,013,261, but again fell in 1901 to 993,976, owing to the bad years of 1892, 1896, 1899, and 1900.

The following table gives statistics according to the Census of 1901:—

Tāluka.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Athni	816	1	82	113,077	139	− 8	5,249
Chikodi	836	2	210	304,549	364	+ 3	15,714
Gokāk	671	1	113	116,127	173	− 2	3,754
Belgaum	644	1	201	137,562	214	− 7	9,839
Sampgaon	409	...	123	132,448	324	− 1	6,031
Parasgad	640	1	124	108,311	169	− 2	6,839
Khānāpur	633	...	217	81,902	129	− 4	3,457
District total	4,649	6	1,070	993,976	214	− 2	50,883

The Chikodi and Sampgaon *tālukas* contain many large and rich villages and are well peopled. The chief towns are BELGAUM, the head-quarters, NIPĀNI, ATHNI, GOKĀK, and SAUNDATTI-YELLAMMA. Classified according to religion, Hindus form 86 per cent. of the total population, Musalmāns 8 per cent., Jains 5 per cent. Among Hindus the only special class are the Lingāyats, a peculiar section of the worshippers of Siva, numbering over 300,000, of whom a description will be found under DHĀRWĀR DISTRICT. The languages in use are Marāthī, mostly in the south and west, and Kanarese generally over the greater part of the District. The latter is spoken by 65 and the former by 25 per cent. of the total. Hindustāni is used by 8 per cent.

The chief castes and their occupations are: Brāhmans,

numbering 32,000. They are for the most part Deshasths (23,000), and are employed as writers, merchants, traders, money-lenders, and landowners. Ayyas or Jangams (24,000) are Lingāyat priests. Traders include Banjigs (26,000) and Adi-banjigs (13,000). There are numerous Jain cultivators and labourers, indicating the former supremacy of the Jain religion in the Bombay Carnatic. Other cultivators are Marāthās and Marāthā Kunbīs (175,000), Chhatris (9,000), Hanbars (15,000), and Lingāyat Panchamsālis (154,000). Craftsmen include Pānchāls (15,000) and Gaundis or Uppars, builders and stone-cutters (14,000). Lingāyat Hongārs or Mālgārs (11,000) are flower-sellers. Shepherds include two shepherd castes, Dhangars or Kurubas (73,000), and Gaulis who keep cows and buffaloes. The depressed classes are chiefly the Holias or Mahārs (48,000) and Māngs or Mādigs (22,000). Along the banks of the Kistna, in the north of the District, are many Kaikādis, a tribe notorious for their skill as highway robbers; while the south of the District was much troubled in recent times by Bedars or Berāds, a thieving caste that assisted in the plundering of Vijayanagar after the battle of Tālikotā. The agricultural population forms 66 per cent. of the total. Industry supports 16 per cent. and commerce 1 per cent. Weavers engaged in the hand-loom industry number more than 13,000, with 11,000 dependents. Castes and occupations.

The District has a considerable Christian population. Of the 5,366 native Christians in 1901, about 5,000 were Roman Catholics. The majority are Konkani or Goa Catholics, who are immigrants from Goa and are under the jurisdiction of the Archbishop of that place. The others include Madras Catholics and Protestants, who came from Madras about 1817. The chief missions are an Anglican Tamil Mission and the American Methodist Mission, with out-stations at Kanbargi, Nesārgi, and Bail Hongal. Roman Catholic priests are resident in Belgaum, Khānāpur, and Godoli; and there are two orphanages and a rescue home in the District, which are managed by independent trustees but belong to the Methodist Episcopal Mission. A mission to soldiers, known as the Soldiers' Home, is situated in the cantonment. Christian missions.

The chief varieties of soil are black and red. The black, which is by far the most fertile, is of two kinds. One variety is very friable, but when impregnated with moisture forms a tough clay-like substance, almost impervious to water, and therefore very valuable as a lining for tanks. The other kind is not so tenacious of moisture, and, unless it receives abun- General agricultural conditions.

dance of irrigation, either natural or artificial, not nearly so productive. In order to bring a waste of black soil under tillage, the field must receive three complete ploughings—one direct, one transverse, and one diagonal. It does not receive any further ploughing, but annually before sowing the ground is cleared and the surface loosened with a small knife. The red and sandy soils are very apt to cake and harden after rain, so that the field must be ploughed every year—if possible, once lengthwise and a second time transversely. This is done by a smaller plough of the same construction as the large plough used for black fields, but lighter. Fields of pure black soil do not receive manure; on the other hand, the out-turn from red and sandy lands seems to depend almost entirely on the amount of dressing they have received.

On 'dry' fields, most of the grain, pulses, oilseeds, and fibres are sown; some are cultivated on red and sandy soils during the rainy months; others are grown on black soil as a cold-season crop. Cotton is raised entirely on black soil as a cold-season crop.

Chief agricultural statistics and principal crops.

The District is almost wholly *ryotwāri*. *Inām* or *jāgīr* lands cover 983 square miles. The chief statistics of cultivation in 1903–4 are shown in the following table, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forest.
Athni	816	701	10	9	1
Chikodi	837	689	28	20	33
Gokāk	671	519	19	10	92
Belgaum	644	309	7	18	135
Sampgaon	410	348	9	10	25
Parasgad	639	526	1	21	49
Khānāpur	633	243	6	22	340
Total	4,650*	3,335	80	110	675

* Statistics are not available for 237½ square miles of this area. These figures are based upon the latest information.

Jowār, the staple of the District, occupying 884 square miles, is grown in all parts, especially in Chikodi, Athni, Gokāk, Parasgad, and Sampgaon. *Bājra* covered 297 square miles, chiefly in Athni, Gokāk, and Chikodi. The south-western portion, being too wet for millets, produces rice (176 square miles) and the coarse hill grains. Wheat (157 square miles) is the prominent crop of Parasgad. *Rāle-kāng* or Italian millet occupied 118 square miles. Pulses occupied 333 square miles; of these, 92 square miles were under *tur*, 98 under *kulith* or horse-gram, and 62 square miles under gram. Oilseeds were

grown on 98 square miles. Chikodi is famous for its sugar-cane and fruit and vegetable gardens. Tobacco (35 square miles) is an important crop in Chikodi in gardens or on favourable plots near villages or along rivers and streams. Cotton, covering 352 square miles, is the most valuable crop grown in the District. It is especially important in Athni, Parasgad, and Gokāk.

Improvements in agricultural practice.

American cotton was introduced in 1845, and is still planted to a small extent in Parasgad and Sampgaon. It has greatly degenerated in the course of years. The cultivators avail themselves freely of the Land Improvement and Agriculturists' Loans Acts. During the decade ending 1903–4 more than 17·4 lakhs was advanced, of which 4·2, 3·2, and 3 lakhs was lent in 1896–7, 1899–1900, and 1901 respectively.

Cattle, ponies, &c.

Cattle of inferior quality are bred by Dhangars in the forest tracts of Khānāpur and Belgaum, the majority of better breed being imported from Mysore and other places. Bullocks of eight breeds are found in all parts, the strongest and largest being imported from South Kāthiāwār, and the best-trotting oxen from Mysore. Of local breeds, the Nagdi are the most useful and hardy. Buffaloes do not thrive near the Western Ghāts; but the Gaulis, Hanbars, and Dhangars of Sampgaon, Gokāk, and the eastern tract rear buffaloes of a good type. The so-called Nagdi buffaloes are reputed the best. Ponies of a small and ugly type are bred locally, as also are donkeys and pigs by Vaddars and other low-caste Hindus. Sheep of two breeds, the Kenguri with a soft red wool and the Yelga with white or black, are reared by Dhangars, while goats of four varieties are ubiquitous. The best breed of the latter is known as Kuisheli.

Irrigation.

Of the total area cultivated, 80 square miles, or 3 per cent., were irrigated in 1903–4. Government canals supplied 15 square miles, tanks 16, wells 46, and other sources 10 square miles. The water-supply is plentiful except in the east. Irrigation is largely employed for rice and vegetables in the best portions of the western half of the District. Of the recently improved reservoirs the chief is the Gadekeri lake about 15 miles south-east of Belgaum, in the Sampgaon *tāluka*, which has an area of 129 acres and a maximum depth of 5 feet. The catchment basin measures 4·68 square miles, and the average rainfall is 29 inches. It supplied 337 acres in 1903–4. The most important water-work is the Gokāk canal and storage reservoir. A masonry weir has been built across the Ghatprabha where its catchment area, including that of its chief

tributaries the Tāmraparni and Harankāshi, is about 1,100 square miles, of which a large extent lies in the Western Ghāts. The storage work and the first section of the canal were completed at a cost of 12·2 lakhs, the capital outlay to the end of 1903–4 being 12·9 lakhs. The Gokāk canals command 28 square miles, and irrigate an average of 16 square miles. Wells used for irrigation are most common in Chikodi and Belgaum. In Khānāpur no wells are used for this purpose. In 1903–4 wells and tanks used for irrigation numbered 12,660 and 1,161 respectively.

Forests. In the west of the District, among the spurs of the Western Ghāts, is a considerable area of forest land. Formerly large tracts were yearly destroyed by indiscriminate cultivation of shifting patches of fire-cleared woodland. This form of tillage has now been limited to small areas, specially set apart for the purpose. The District possesses 665 square miles of 'reserved' and 10 square miles of 'protected' forest. Of this total, 51 square miles are in charge of the Revenue department. It is very unevenly distributed, the large *tālukas* of Athni and Parasgad having little or no forest, while Khānāpur has twice as much forest as tillage. The forest administration is under a divisional officer, assisted by a subdivisional officer. The Belgaum forests may be roughly divided into 'moist' and 'dry,' the 'dry' lying east of the Poona-Harihar road and the 'moist' lying west of the road. The latter includes the forests of Belgaum and Khānāpur, about 500 square miles. The 'dry' forest, about one-eighth of which is stocked with useful wood, is very poor and stony, yielding only firewood scrub with a few small poles fit for hut-building. The produce is chiefly cactus, four kinds of fig, *dindal*, and *tarvār*. The most important trees in the 'moist' forest are teak, black-wood, *honne* (*Pterocarpus Marsupium*), *hirda* or myrabolam, and jack-wood. There are also a few *babūl* Reserves. The forest supplies large quantities of firewood to the Southern Mahratta Railway. The total forest receipts in 1903–4 were 2·77 lakhs.

Minerals. Diamonds are said to have been found in the sandstone towards Kolhāpur and gold in the valley of the Malprabha. Iron was formerly smelted in Belgaum, Gokāk, and Sampgaon, and near the Rām pass. The ore is generally peroxide of iron, with a mixture of clay, quartz, and lime. All the laterite of the District is charged with iron, though in too small a proportion to make it worth smelting. The manufacture of iron has now ceased, partly on account of the increased cost of fuel and partly because of the fall in the price of iron. Besides iron,

the only metallic ore which occurs in any quantity is an earthy powdery form of peroxide of manganese, which is found among weathered dolomite at Bhīmgarh.

Arts and manufactures.

Next to agriculture, hand-loom weaving forms the chief industry of the District. The weavers are generally Lingāyats or Musalmāns, with a small sprinkling of Marāthās. The finer sorts of cloth are manufactured only in two or three towns. With the exception of a small quantity of cloth sent to the neighbouring Districts, the produce of its hand-looms is almost entirely consumed in Belgaum. Simple dyeing and tanning are carried on over the whole District. Gokāk town was once famous for its dyers, and is still noted for a coarse kind of paper made in large quantities. Gokāk toys, made both from light kinds of wood and from a peculiar kind of earth, are also celebrated. They consist of models of men and gods, fruits and vegetables. A factory for spinning and weaving cotton yarn was established at Gokāk, by an English company, in 1887. The mills are worked by water-power supplied from the falls of the Ghatprabha from a height of about 170 feet. The average daily number of labourers employed in the factory is 2,038, and the yearly out-turn of yarn and cloth amounts to 5,000,000 lb. The railway station for the mills is Dhupdhal.

Commerce and trade.

The capitalists of the District are chiefly Mārwāris and Brāhmans, but in the town of Belgaum there are a few Musalmāns who possess comfortable fortunes. There is a considerable trade in cloth and silk, the chief exports being rice, jaggery, tobacco, and cotton, and the chief imports cloth, silk, salt, and grain. In several villages throughout the District markets are held at fixed intervals, usually once a week. These markets supply the wants of the country round within a radius of about 6 miles, containing as a rule from twenty-five to thirty villages and hamlets.

Communications. Railways and roads.

The West Deccan section of the Southern Mahratta Railway, crossing the District from north to south, was opened in 1887. The line passes through the Khānāpur, Belgaum, Chikodi, Gokāk, and Athni *tālukas*. A considerable traffic which used to pass along the Poona-Harihar road, or coastwards by the Ghāt passes, is now carried by the railway. At Londa, a station in the Khānāpur *tāluka*, the West Deccan section connects with the Bangalore and the Marmagao lines, and in the spring a large amount of produce finds its way to the sea by the latter route. The total length of metalled roads is 498 miles, and of unmetalled roads 515 miles. Of these,

449 miles of metalled and 62 of unmetalled roads are maintained by the Public Works department. The chief roads are the Harihar road, the Belgaum-Amboli-Vengurla road, the Nipāni-Mahalingpur road, the road from Sankeshwar to Dhārwār via Hukeri, Gokāk, and Saundatti, the road from Shedbal to Bijāpur via Athni, and the Belgaum-Khānāpur road to Londa and Kanara.

Famine.

The District has suffered from constant scarcities owing to the uncertainty of its rainfall. The earliest recorded calamity is the great Durgā-devī famine (1396–1407). Subsequent famines occurred in 1419, 1472–3 (exceptional distress), 1790 (caused by the raids of the Marāthās), 1791–2 (failure of early rain), 1802–3 (caused by the depredations of the Pindāris), 1832–3, 1853, and 1876–7. The need of Government help began about the middle of September, 1876. At the height of the famine in May, 1877, there were 43,196 persons on relief works and 7,641 in receipt of gratuitous relief. After fifteen years the District again (1892) suffered from famine, which chiefly affected three of its *tālukas*, Athni, Gokāk, and Parasgad, and relief works were opened. In 1896 the rains were indifferent, and nearly one-third of the total area of the District was distressed, relief being again required. In 1899 the rains failed, bringing on intense scarcity in Athni, Gokāk, Parasgad, and part of Chikodi. Relief works were opened in December, 1900, and continued till October, 1902. The highest number relieved in a day on works was 16,313 (excluding 5,672 dependents) in August, 1901, 5,876 being in receipt of gratuitous relief. It is calculated that the excess of mortality over the normal during the three years was 60,000, and that 100,000 cattle died. Exclusive of advances to the agriculturists and remissions, the famine in the District cost 5 lakhs. Remissions of land revenue and advances amounted to about 2 lakhs.

District subdivisions and staff.

The District is divided into seven *tālukas*: ATHNI, CHIKODI, BELGAUM, GOKĀK, SAMPGAON, KHĀNĀPUR, and PARASGAD. The Collector is usually assisted by two officers of the Indian Civil Service and one Deputy-Collector recruited in India. There are three petty subdivisions (*pethas*): Murgod in Parasgad, Hūkeri in Chikodi, and Chandgad in the Belgaum *tāluka*.

Civil and criminal justice.

The District and Sessions Judge at Belgaum is assisted by five Subordinate Judges for civil business. There are altogether seventeen officers to administer criminal justice in the District. The commonest offences are burglary and theft.

On the acquisition of Belgaum in 1818 the Marāthā assessment remained for a time unrevised, although Bājī Rao's revenue-farming system, which had wrought great havoc in the District, was immediately suspended in favour of the personal or *ryotwāri*, then known as the Madras system. A survey was attempted during the first ten years of British rule, but no revision of assessment was carried out. The principal features of the land revenue system between 1818 and 1848 were a very high nominal demand and the annual grant of large remissions after inspection of the crops. The assessment by both village and holding was very unequally distributed. The settlement of the District began in 1848-9. It was at first introduced into 108 villages of the Parasgad *tāluka*, and by 1860-1 the whole District had been surveyed and its assessment fixed for thirty years. The villages were arranged in five or more classes, the rate of assessment per acre for each class being fixed in accordance with climatic conditions, propinquity of markets, and other circumstances. The net result was the reduction of the total revenue from 6·4 to 5·5 lakhs. The revision survey settlement was introduced into the District in 1879 and was completed by 1897. The revision found an increase in the cultivated area of 2 per cent. and enhanced the total revenue from 8·5 to 10·9 lakhs. The average assessment per acre of 'dry' land is 13 annas, of rice land Rs. 3-8, and of garden land Rs. 2-7. Land revenue administration.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	17,68	21,63	20,26	22,55
Total revenue . .	24,05	31,04	35,96	31,50

The District contains six municipalities: namely, BELGAUM, NIPĀNI, ATHNI, GOKĀK, SAUNDATTI, and YAMKANMARDI, the total annual income of which averages a lakh. Outside these, local affairs are managed by a District board and seven *tāluka* boards, with an average income of 2·2 lakhs. The principal source of their income is the land cess. The expenditure in 1903-4 amounted to 2·3 lakhs, including one lakh spent on roads and buildings. Municipalities and local boards.

The District Superintendent of police is aided by two Assistants and two inspectors. There are fourteen police stations in the District. The police number 667: namely, 11 chief constables, 139 head constables, and 517 constables Police and jails.

The mounted police number 12, under 2 *daffadārs*. There are 10 subsidiary jails in the District, with accommodation for 244 prisoners. The daily average number of prisoners in 1904 was 81, of whom 6 were females.

Education. Belgaum stands eleventh among the twenty-four Districts of the Presidency in regard to the literacy of its population, of whom 5·1 (9·8 males and 0·3 females) could read and write in 1901. In 1881 the number of schools was 200, with 12,386 pupils. The latter number rose to 22,064 in 1891; and in 1901 there were 16,239 pupils, of whom 852 were in 47 private schools. In 1903–4 there were 352 schools, of which 37 were private institutions, attended by 12,927 pupils, including 1,867 girls. Of the public institutions, 2 are high schools, 6 middle, and 307 primary schools. Of the institutions classed as public, one is maintained by Government, 220 are managed by local boards, 30 by municipal boards, and 64 are aided. The total expenditure on education in 1903–4 was 1·38 lakhs, of which Rs. 22,500 was derived from fees, and Rs. 34,000 was contributed by Local funds. Of the total, 75 per cent. was devoted to primary education.

Hospitals and dispensaries. Belgaum District contains one hospital, five dispensaries, and one railway medical institution, accommodating 86 in-patients. In these institutions 48,000 patients were treated in 1904, including 714 in-patients, and 1,386 operations were performed. The total expenditure, exclusive of the railway dispensary, was about Rs. 14,500, of which Rs. 6,000 was met from municipal and Local funds.

Vaccination. The number of persons successfully vaccinated in 1903–4 was 20,758, representing a proportion of 21 per 1,000 of population, which is lower than the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. xxi (1884); J. F. Fleet, *Dynasties of the Kanarese Districts* (1896); E. Stack, *Memorandum on Land Revenue Settlements* (Calcutta, 1810).]

Athni Tāluka.—North-eastern *tāluka* of Belgaum District, Bombay, lying between 16° 27′ and 16° 58′ N. and 74° 40′ and 75° 25′ E., with an area of 816 square miles. It contains one town, ATHNI (population, 11,107), the head-quarters; and 82 villages, including KUDCHI (5,879). The population in 1901 was 113,077, compared with 123,438 in 1891. The density, 139 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was 2·3 lakhs, and for cesses Rs. 19,000. Most of the lands of Athni are bare and treeless. The *tāluka* is divided by

a range of hills into two very similar tracts of level country. The climate is generally dry and healthy, the average rainfall being only 23 inches. The southern portion, which is crossed by the winding Kistna, is an open plain of fine black soil with many small rich villages.

Chikodi Tāluka.—North-western *tāluka* of Belgaum District, Bombay, lying between 16° 3′ and 16° 40′ N. and 74° 15′ and 74° 48′ E., with an area, including the Hukeri petty subdivision (*petha*), of 836 square miles. It contains two towns, NIPĀNI (population, 11,632) and YAMKANMARDI (4,556); and 210 villages, including BHOJ (5,450), BORGAON (5,495), CHIKODI, the head-quarters (8,037), EKSAMBE (5,970), HUKERI (6,265), KARADGE (5,138), KONGNOLI (5,597), SĀDALGI (9,091), and SANKESHWAR (5,639). The population in 1901 was 304,549, compared with 295,305 in 1891. Chikodi is the most thickly populated *tāluka* in the District, with a density of 364 persons per square mile, and this was the only *tāluka* which increased in population between 1891 and 1901. The demand for land revenue in 1903–4 was 3·34 lakhs, and for cesses Rs. 32,000. The rich black soil of the north gradually passes into red towards the west. In the south the soil is gritty and poor. The *tāluka* is famous for its tobacco, sugar-cane, fruit, and vegetable gardens. The irrigation wells protect a large area. The annual rainfall averages 32 inches.

Gokāk Tāluka.—Eastern *tāluka* of Belgaum District, Bombay, lying between 15° 57′ and 16° 30′ N. and 74° 38′ and 75° 18′ E., with an area of 671 square miles. It contains one town, GOKĀK (population, 9,860), the head-quarters; and 113 villages, including KONNŪR (5,667). The population in 1901 was 116,127, compared with 118,556 in 1891. The density, 173 persons per square mile, is below the District average. The demand for land revenue in 1903–4 was 1·5 lakhs, and for cesses Rs. 13,000. Gokāk has the worst climate in Belgaum, being malarious during the cold months and oppressive during the hot season. In the monsoon, however, it is pleasant, and free from the excessive rains of Belgaum town, the average fall being 25 inches. The sandstone hills in Gokāk intercept the monsoon showers from the west, rendering the plain beyond especially liable to drought. The two sections of the Gokāk canal irrigate about 28 square miles. The source of supply is from the Ghatprabha river, on which are situated the famous Gokāk Falls.

Belgaum Tāluka.—Central *tāluka* of Belgaum District, Bombay, lying between 15° 41′ and 16° 3′ N. and 74° 2′ and

74° 43′ E., with an area, including the Chandgad petty subdivision (*petha*), of 644 square miles. It contains one town, BELGAUM (population, 36,878), the head-quarters; and 201 villages. The population in 1901 was 137,562, compared with 147,150 in 1891, the decrease being largely due to the ravages of plague. The density, 214 persons per square mile, is about the average for the District. The demand for land revenue in 1903-4 was 1·9 lakhs, and for cesses Rs. 16,000. In the north-west of Belgaum, long sandstone ridges border and in many places cross the central plain. In the west, close to the Western Ghāts, the climate is damp, while to the east it is more pleasant. The annual rainfall is fairly heavy, averaging 52 inches. Round Belgaum town the country is richly cultivated.

Sampgaon.—South-eastern *tāluka* of Belgaum District, Bombay, lying between 15° 28′ and 15° 59′ N. and 74° 38′ and 74° 59′ E., with an area of 409 square miles. It contains 123 villages, including HONGAL (population, 8,675). The head-quarters are at Sampgaon, a small village. The population in 1901 was 132,448, compared with 132,632 in 1891. The density, 324 persons per square mile, is above the District average. The demand for land revenue in 1903-4 was 3 lakhs, and for cesses Rs. 21,000. Sampgaon has a great variety of soil and surface. From the hilly west the country gradually sinks eastwards into a great plain of black cotton soil. In the south-west, ranges of quartz and ironstone, about 150 feet high and a quarter to half a mile apart, run nearly north and south. The Malprabha river crosses the middle of the *tāluka* from west to east. Sampgaon lies in the transition tract between the hills and plains, and enjoys a fair immunity from famine. A portion is also protected by a supply of water from the Gadekeri tank. The annual rainfall averages about 30 inches.

Parasgad.—South-easternmost *tāluka* of Belgaum District, Bombay, lying between 15° 36′ and 16° 9′ N. and 74° 49′ and 75° 19′ E., with an area, including the Murgod petty subdivision (*mahāl*), of 640 square miles. It contains one town, SAUNDATTI (population, 9,525), the head-quarters; and 124 villages, including MANOLI (5,308) and MURGOD (5,655). The population in 1901 was 108,311, compared with 110,584 in 1891. The density, 169 persons per square mile, is below the average for the District. The demand for land revenue in 1903-4 was 2·37 lakhs, and for cesses Rs. 19,000. A low range of sandstone hills running north-west and south-east divides Parasgad into two nearly equal parts. South-west of

the hills, whose southern face is steep and rugged, lies a plain of fine black soil with many rich villages and hamlets, which suffered severely in the famine of 1876–7. The north-east, which is broken by low hills, is a high waving plateau overgrown with scrub and prickly pear, the soil being mostly poor and sandy. In the extreme north, the sandstone gives place to trap, and the soil is generally shallow and poor. The Malprabha, which flows north-east through the middle of the *tāluka*, forms with its feeders the chief water-supply. Before the close of the hot season almost all the small streams dry up and stagnate, and the well and pond water becomes unwholesome. In the north and east the rainfall is scanty and uncertain; but in the south and west, and in the immediate neighbourhood of the Western Ghāts, it is plentiful. The annual fall at the *tāluka* head-quarters averages 23 inches.

Khānāpur.—Southernmost *tāluka* of Belgaum District, Bombay, lying between 15° 22′ and 15° 47′ N. and 74° 5′ and 74° 44′ E., with an area of 633 square miles. It contains 217 villages, including NANDGAD (population, 6,257). The head-quarters are at Khānāpur. The population in 1901 was 81,902, compared with 85,596 in 1891. The density, 129 persons per square mile, is much below the District average, and it is the most sparsely peopled *tāluka* in the District. The demand for land revenue in 1903–4 was 1·45 lakhs, and for cesses Rs. 11,000. In the south and south-west the country is covered with hills and dense forest; the inhabitants are few and unsettled; and, except in patches, tillage disappears. In the north-west the hills are especially lofty. In the centre, north-east, and east, the country is an open, well-tilled, black-soil plain, with many rich and populous villages. The climate is temperate and healthy during the hot months, but malarious in the cold season and during the south-west rains. The annual rainfall, averaging 71 inches, is heavier than in other *tālukas*.

Athni Town.—Head-quarters of the *tāluka* of the same name in Belgaum District, Bombay, situated in 16° 44′ N. and 75° 4′ E. Population (1901), 11,107. The municipality, established in 1853, had an income averaging Rs. 16,600 during the decade ending 1901. In 1903–4 the income was Rs. 16,600. Athni is a place of importance as a local centre of trade. Its wheelwrights are known as excellent workmen; and it has manufactures of coarse cotton cloth, blankets, and saltpetre, as well as factories for pressing and cleaning cotton. It is the chief rural market in the District, sending cotton and

grain westwards to Mirāj (24 miles), and receiving from the sea-coast through Mirāj rice, coco-nuts, and dried fish. The French traveller Mandelslo in 1639 noticed 'Atteny city' as one of the chief markets between Bijāpur and Goa. About 1670 the English geographer Ogilby mentioned 'Attany' as a great trading town. In 1679 this mart was taken from Sivajī by the Mughal Dilāwar Khān, who sacked it. Dilāwar Khān wished to sell the people as slaves. Sambhājī, the son of Sivajī, who some time before had rebelled against his father and joined Dilāwar Khān, opposed the suggestion, and, on Dilāwar Khān ignoring his remonstrances, left the camp and became reconciled with his father. About 1720 Athni was seized by the Nizām, who made it over to the chief of Kolhāpur, by whom it was given to Rājā Sāhu of Sātāra in 1730. Athni lapsed to the British Government in 1839, on the death of the Nipāni chief. The town contains a Subordinate Judge's court, a dispensary, a municipal middle school, and four other schools, one of which is for girls.

Belgaum Town.—Head-quarters of the District of the same name in the Southern Division of the Bombay Presidency, situated in 15° 51′ N. and 74° 31′ E., at an elevation of nearly 2,500 feet above sea-level, on the northern slope of the basin of a watercourse called the Bellary nullah, and on the Southern Mahratta Railway. Population (1901), 36,878, including the cantonment (10,641) and suburbs (3,803). The municipality was established in 1851. During the ten years ending 1901 the income averaged about Rs. 50,000. In 1903–4 the income was Rs. 51,000, chiefly derived from octroi (Rs. 22,000), conservancy rates (Rs. 9,100), and taxes on houses and land (Rs. 4,600). The expenditure amounted to Rs. 50,000, including general administration (Rs. 6,400), public safety (Rs. 2,300), conservancy (Rs. 15,900), public works (Rs. 4,000), and education (Rs. 9,900). The average receipts of the cantonment funds are Rs. 25,000.

The native town lies between the fort on the east and the cantonment, which extends along its western front, separated from it by a watercourse. It forms an irregular ellipse, approximating to a circle, of which the shorter axis is about 1,300 yards. The rock on which the town is built consists of laterite, lying upon Deccan trap. The site is well wooded. Bamboos, from which Venugrama, the ancient name of the town, is said to be derived, are plentiful, and mangoes, tamarinds, and banyans also abound. The fort, about 1,000 yards in length and 700 yards in breadth and occupying an

area of about 100 acres, is surrounded by a broad and deep wet ditch, cut in hard ground. It appears to have been built in 1519, and contains two Jain temples of great interest. The *dargāh* of Asad Khān and the Safa Masjid will also repay a visit. Belgaum was the chief town of a district known as the Belgaum 'seventy' in 1160. About 1205 the Rattas captured it from the Goa Kadambas and made it their capital. In 1250 it passed from the Rattas to the Yādavas. In 1375 the fortress of Belgaum was included in Vijayanagar territory. After being held by Muhammadan rulers the fort passed to the Peshwās about 1754. In 1818, after the overthrow of the Peshwā, the place was invested by a British force. It held out for twenty-one days, after which the garrison of 1,600 men capitulated, having lost 20 killed and 50 wounded, while the British loss amounted to 11 killed and 12 wounded.

Belgaum, since its acquisition by the British, has increased greatly in size and wealth. It was chosen as the civil head-quarters of the District in 1838. It is a military station of the Poona division of the Western Command, and is usually garrisoned by British and Native infantry and a battery of artillery. Of recent years it has suffered severely from recurring epidemics of plague, which have driven many of the residents to remove from the town site and to erect houses in the vicinity. The principal articles of trade are salt, dried fish, dates, coco-nuts, and coir, imported from the sea-coast, chiefly from the port of Vengurla. Grain of all kinds, sugar, and molasses are also brought from the country round. The city contains more than 300 hand-looms for the manufacture of cotton cloth. The water-supply is derived entirely from wells. Besides nine municipal boys' schools with 980 and four girls' schools with 323 pupils, there are two high schools with about 500 pupils, one a Government institution, the other belonging to the Methodist Episcopal Mission. There are also two schools for European and Eurasian boys, and a Roman Catholic convent for girls. Belgaum is the residence of the Commissioner of the Southern Division. Besides the ordinary revenue and judicial offices, the town contains a cantonment magistrate's and a Subordinate Judge's court, a civil hospital, and a railway dispensary.

Bhoj.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 32′ N. and 74° 30′ E., about 13 miles north-west of Chikodi town. Population (1901), 5,450. The village has a copperplate grant, dated 1208, of Kārtavirya IV and Mallikārjun (1200–18), brothers and joint-rulers belonging to the Ratta dynasty of Saundatti and Belgaum (875–1250).

In 1773 Bhoj was the scene of the defeat by Yesājī Sindhia, the Kolhāpur minister, of Konher Rao Trimbak Patvardhan of Kurandvād, who was raiding into the Kolhāpur country. The village contains a boys' school with 22 pupils.

Borgaon.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 35′ N. and 74° 33′ E. Population (1901), 5,495. The village is purely agricultural, and contains a boys' school with 77 pupils.

Chikodi Village.—Head-quarters of the *tāluka* of the same name in Belgaum District, Bombay, situated in 16° 26′ N. and 74° 35′ E., 16 miles from Chikodi station on the Southern Mahratta Railway. Population (1901), 8,037. It is a considerable entrepôt of trade between the interior and the coast, with which it has ready communication by a road from Nipāni over the Phonda *ghāt*. Cotton goods are manufactured, chiefly for local use. It was described as a large and respectable town by Major Moor in 1790. The neighbourhood was then famous for grapes of extraordinary size and flavour. Chikodi contains a Subordinate Judge's court, a dispensary, and four schools with 200 pupils, of which one is a girls' school with 40 pupils.

Eksambe.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 32′ N. and 74° 40′ E. Population (1901), 5,970. The village is purely agricultural, and contains one boys' school with 90 pupils.

Gokāk Town.—Head-quarters of the *tāluka* of the same name in Belgaum District, Bombay, situated in 16° 10′ N. and 74° 49′ E., 8 miles from Gokāk Road on the Southern Mahratta Railway. Population (1901), 9,860. The town was formerly the seat of a large dyeing and weaving industry, not yet extinct, and was also known for its manufacture of toys representing figures and fruits, made of light wood and of a particular earth found in the neighbourhood. The municipality, established in 1853, had an average income of Rs. 12,500 during the decade ending 1901. In 1903–4 the income was Rs. 8,500. A fort, standing on an isolated peak behind the town, is said to have been built by one of the Adil Shāhi Sultāns of Bijāpur. The earliest mention of Gokāk is probably as Gokāge, which occurs in an inscription dated 1047. In 1685 the town was the head-quarters of a *sarkār*. Between 1717 and 1754 it fell to the Nawābs of Savanūr, who built the mosque and Ganji Khāna. In 1836, on the death of Govind Rao Patvardhan, the town and *tāluka* lapsed to the British. The town contains a Subordinate Judges' court, a dispensary, a municipal English school, and five other

schools with 427 pupils, of which one with 25 pupils is a girls' school.

About 3½ miles north-west of Gokāk town and 3 miles from Dhupdal station on the Southern Mahratta Railway are the Gokāk Falls, where the Ghatprabha takes a mighty leap of 170 feet over a sandstone cliff into a picturesque gorge. In the monsoon the falls well repay a visit. On the right bank of the river close to the falls is a cotton-mill, established in 1887. The mill employs daily 2,038 hands, and produces annually 17,000,000 lb. of yarn and 2,000,000 lb. of cloth. To supply motive power, as well as for irrigation purposes, the Gokāk storage works were constructed in 1889–1902, whereby 907,000,000 cubic feet of water are impounded. The cost of the works was 17 lakhs.

Halsi (or Halasige).—Village in the Khānāpur *tāluka* of Belgaum District, Bombay, situated in 15° 32′ N. and 74° 36′ E., about 10 miles south-east of Khānāpur. Population (1901), 2,192. Halsi stands on an ancient site, which was the chief capital of the early Kadambas (A. D. 500) and a minor capital of the Goa Kadambas (980–1250). Two large temples (Varāhnarsingh's and Suvarneshwar's) stand in the village, and a third (Rāmeshwar's) on a hill about 2 miles to the west. There is an inscription, dated A. D. 1169, on the temple of Varāhnarsingh. About 1860, six copperplates were found in a mound close to a small well called Chakratīrth, on the Nandgad road, about 3 miles north of Halsi, recording grants by an old dynasty of Kadamba kings, whose capitals were at Banvāsi and Halsi, and who were Jains by faith. They may be assigned to about the fifth century A. D. Halsi is also called Palashika, Palshi, and Halasige in inscriptions. The village contains a boys' school with 66 pupils.

Hongal (Bail Hongal).—Village in the Sampgaon *tāluka* of Belgaum District, Bombay, situated in 15° 49′ N. and 74° 52′ E. Population (1901), 8,675. There are manufactures of coarse cotton cloth and articles of native apparel, some of which are sold in the neighbouring markets, and the remainder exported via Belgaum to the Konkan. Hongal is built on rising ground at the eastern side of a fine tank, from which is drawn the main water-supply of the inhabitants. North of the village stands an old Jain temple, now converted into a *lingam* shrine, which contains two inscriptions of the twelfth century. The prefix 'Bail' refers to the fact of the place being built in an open black-soil country. The market is celebrated for the superior class of bullocks brought to it for sale. A large annual fair is

held, at which wrestlers from the surrounding country assemble. There is a branch of the Methodist Episcopal Mission with a mission house and a chapel, and two schools, one for boys and one for girls, with 60 and 30 pupils respectively. There are also two other boys' schools with 220 pupils.

Hukeri.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 13′ N. and 74° 36′ E., 30 miles north-north-east of Belgaum town. Population (1901), 6,265. Hukeri is connected with the high road to Poona and with the large town of Gokāk by metalled roads. It is a *mahālkari's* station. On the outside of the village, to the north, are some interesting Muhammadan remains of the sixteenth century, including two domed tombs in the same style as those at Bijāpur. One of the tombs is kept in repair and furnished for the use of the Collector, or as a resthouse for travellers. A few miles to the east is another large tomb of the same architecture. The place is abundantly supplied with good water by means of an underground pipe connected with a spring to the north-west. This system of water-supply dates from the period of Muhammadan rule. A municipality was established in 1854, but abolished in 1864. The town, which has suffered severely from plague, contains a boys' school with 110 pupils and a girls' school with 46. In 1327 Muhammad bin Tughlak stationed officers here on his conquest of the Carnatic. After the Mughal destruction of Bijāpur in 1686 Hukeri was the only part of Belgaum that remained to the Marāthās, and it continued to be held by an independent Desai, the ancestor of the present Vantamurikar. In 1763 Mādhu Rao Peshwā reduced the Hukeri Desai and granted his district to the Kolhāpur chief, who was deprived of it in 1769. In 1791 Major Moor found Hukeri a poor town.

Huli.—Village in the Parasgad *tāluka* of Belgaum District, Bombay, situated in 15° 48′ N. and 75° 12′ E., about 5 miles east of Saundatti. Population (1901), 2,104. The chief object of interest is a handsome but ruined temple of Panchlingdeo, originally a Jain *bastī*. Inside are a Lingāyat inscription, a curious Nāga figure, and a Ganpati, probably brought from some other temple. Of three inscriptions at Huli, two belong to the reigns of the Western Chālukya kings, Vikramāditya V (1018–42) and Somesvara II (1069–75), and one to the Kalachuri Bijjala (1155–67). On the fall of Vijayanagar after the battle of Tālikotā (1565), Huli with various other places in Belgaum fell to the Navalgund chief Vitta Gauda. In 1674 Huli fort is said to have been built by Sivajī, and it is one of

many recorded to have been held by him at the time of his death. While in pursuit of Dhundia Vāgh, General Wellesley gave the garrison of Huli on July 30, 1800, a promise of safety on condition that they committed no aggression. On August 1 they plundered the baggage of a British force as it passed the fort on the march to Saundatti, and on the 22nd Lieutenant-Colonel Capper attacked the fort and carried it by escalade. The village contains a boys' school with 82 pupils.

Karadge.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 33′ N. and 74° 30′ E. Population (1901), 5,138. The village, which is purely agricultural, contains a boys' school with 66 pupils.

Kittūr.—Village and fort in the Sampgaon *tāluka* of Belgaum District, Bombay, situated in 15° 36′ N. and 74° 48′ E., 26 miles south-east of Belgaum town. Population (1901), 4,922. A stone in a temple at this place preserves an interesting record of a trial by ordeal in 1188. The Desais of Kittūr were descended from two brothers who acted as bankers with the Bijāpur army towards the close of the sixteenth century. For their services they obtained a grant of Hubli, and their fifth successor established himself at Kittūr. On the fall of the Peshwā, the place passed into the hands of the British. But in 1818, when General Munro was besieging the fort of Belgaum, the Desai of Kittūr gave great assistance, and in return was allowed to retain possession of the village. The Desai died in 1824 without issue. An attempt was subsequently made to prepare a forged deed of adoption, which led to an outbreak, in which the Political Agent and Collector, Mr. Thackeray, was killed and his two Assistants imprisoned. The prisoners were afterwards released, but the fort was not surrendered until it had been attacked and breached, with a loss of 3 killed and 25 wounded. Among the killed was Mr. Munro, Sub-Collector of Sholāpur, a nephew of Sir Thomas Munro. Kittūr then finally passed into the hands of the British, although another rising occurred in 1829, which was not suppressed without difficulty. Bi-weekly markets are held here, at which cotton, cloth, and grain are sold. Weaving and glass bangle making are the sole industries. The fort is still standing, in a ruined condition. Kittūr contains three boys' schools with 222 pupils and two girls' schools with 104.

Kongnoli.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 33′ N. and 74° 20′ E., on the Belgaum-Kolhāpur road, in the extreme north-west corner of the District. Population (1901), 5,597. The village has

a large trade, sending rice to Belgaum and various places in Kolhāpur, and importing cloth, dates, salt, spices, and sugar. A weekly market takes place on Thursday, when cotton yarn, grain, molasses, tobacco, and from 2,000 to 3,000 cattle are sold. The weaving of women's *sārīs*, waist-cloths, and inferior blankets is the only industry. Paper for packing purposes and for envelopes was manufactured to a large extent before the famine of 1876-7, but during the famine the papermakers deserted the village. It contains a boys' school with 90 pupils.

Konnūr (the *Kondanuru* of inscriptions).—Village in the Gokāk *tāluka* of Belgaum District, Bombay, situated in 16° 11′ N. and 74° 45′ E., on the Ghatprabha river, about 5 miles north-west of Gokāk. Population (1901), 5,667. It contains a boys' school with 81 pupils. Near the Gokāk Falls on the Ghatprabha, within the limits of Konnūr village, are several ruined temples of about the eleventh century. To the south, close to the foot of some sandstone hills, are a number of the slab-walled and slab-roofed cell-tombs or kistvaens which have been found near Hyderābād in the Deccan and in other parts of Southern India, and which have a special interest from their likeness to the old stone chambers in England. The most interesting feature is a group of fifty more or less perfect rooms. All the stone slabs used as walls and roofs are of the neighbouring quartzite sandstone. They show no signs of tooling, but seem to have been roughly broken into shape. The cell or kistvaen is formed of six slabs of flat unhewn stone. From an opening in the south face a small passage is usually carried at right angles to the chamber. Over each cell-tomb a cairn of small stones and earth seems originally to have been piled, probably forming a semi-spherical or domed mound about 8 feet high. In almost every case remains of these mounds or covers are seen. Many of the chambers are ruined, and of some only a few stones are left, the large slabs having probably been taken for building. Some of the better-preserved chambers were surrounded by a square rough-hewn stone kerb, which in some instances is in fair order. This kerb was probably a plinth on which the covering mound rested, which in some cases seems to have been carefully built of rough stone boulders set in mud. An examination of the magnetic bearing of the axes of these chambers showed that of forty-eight chambers in the main group the axes of ten pointed due north, and of thirty-two west of north, in one case as much as 34° west, but most were much nearer north than west. The remaining six pointed east of north, one as much as 27°

east and the rest only a few degrees east. The people call these erections 'Pāndavas' houses,' and say the Pāndavas built them as shelters. The complete or almost complete weathering away of the mounds of earth and stones which originally covered these burial-rooms shows that they must be of great age. As *konne* is the Kanarese for 'room' and *uru* for 'village,' it seems probable that the village takes its name from its cell-tombs or burial-rooms, and that Konnūr means 'the room village.' One of the most perfect tombs contained fragments of a human tooth and bones, and some pieces of pottery.

Kudchi.—Village in the Athni *tāluka* of Belgaum District, Bombay, situated in 16° 38′ N. and 74° 52′ E., on the Southern Mahratta Railway. Population (1901), 5,879. There is a local manufacture of carpets. The village contains two boys' schools with 105 pupils and a girls' school with 26. On an island in the Kistna river, about a mile east of the village, in a *babūl* and tamarind grove, is a black stone tomb of Shaikh Muhammad Siraj-ud dīn Pīrdādi, a Musalmān saint and missionary. Among the numerous converts he made was a princess of Balkh named Masapli. She accompanied her preceptor to India, and died here after a life of charity and benevolence. The saint died at Gulburga and was buried there, but in his honour a cenotaph was built near the tomb of the princess. Yearly fairs are held at the tomb. The *ināmdārs* claim to have been in possession of the village since the fourteenth century.

Manoli.—Town in the Parasgad *tāluka* of Belgaum District, Bombay, situated in 15° 51′ N. and 75° 7′ E., 42 miles east of Belgaum town. Population (1901), 5,308. Manoli had a once considerable, but now declining, industry in dyeing yarns. It is famous as the spot where General Wellesley, afterwards the Duke of Wellington, overtook the notorious freebooter Dhind-deva Wāgh (better known as Dhundia), after a long pursuit from Mysore territory. The freebooter with his followers had encamped on the banks of the Malprabha river, opposite the town, where he was surprised by General Wellesley at the head of a body of cavalry. The town contains eight temples dedicated to Panchling-deo, built of coarse-grained stone, without any remarkable carving; and a ruined fort. There is a boys' school with 97 pupils.

Murgod.—Village in the Parasgad *tāluka* of Belgaum District, Bombay, and head-quarters of the Murgod *mahāl* or petty division, situated in 15° 53′ N. and 74° 56′ E., 27 miles

east of Belgaum town. Population (1901), 5,655. Murgod is a considerable market for cotton and grain, and some business is done in printing cotton cloth. A small fair lasting for six days is held annually, in honour of Chitāmbareshwar, at the temple of Mallikārjun. In 1565, after the battle of Tālikotā, Murgod was taken by Vitta Gauda, the ancestor of the present Sar Desai of Sirsangi. After his death it was held by Sivajī. The village contains one boys' and one girls' school, attended by 18 and 12 pupils respectively.

Nandgad (*Nandigad*).—Village in the Khānāpur *tāluka* of Belgaum District, Bombay, situated in 15° 34′ N. and 74° 35′ E., 23 miles south of Belgaum town. Population (1901), 6,257. Nandgad is an important trade centre. The chief imports are areca-nuts, coco-nuts, coco-nut oil, dates, and salt, bought from native Christian traders of Goa, while wheat and other grains are exported. The place contains a wealthy population of Brāhmans and Lingāyat traders, and has an unenviable reputation for litigation and lawlessness. Not far from the village is the ruined fort of Pratāpgarh, built by Malla Sarya Desai of Kittūr in 1809. On Shamshergarh, 1½ miles west of the village, is a temple of Tateshwar ascribed to Jakhanāchārya. The place contains three schools for boys and one for girls.

Nipāni.—Town in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 24′ N. and 74° 23′ E., on the road from Belgaum to Kolhāpur, 40 miles north of Belgaum town. Population (1901), 11,632. The estate, of which this town was the principal place, lapsed to the British Government in 1839 upon the demise of its proprietor. Nipāni has a large trade, and a crowded weekly market on Thursdays. On market days from two to three thousand cattle are offered for sale. The municipality, established in 1854, had an average income during the decade ending 1901 of Rs. 13,000. In 1903-4 the income was Rs. 13,200. The town contains three schools for boys with 100 pupils, and one for girls with 22.

Sadalgi.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 34′ N. and 74° 32′ E., 51 miles north of Belgaum town, and 25 south-east of Kolhāpur. Population (1901), 9,091. Coarse waist-cloths, blankets, and women's *sārīs* are woven, but the chief industry in the village and neighbourhood is sugar-making. A large area is cultivated with sugar-cane, and a considerable quantity of molasses is prepared here. The village contains two boys' schools with 35 pupils.

Sankeshwar (more correctly *Shankheswar*, or 'the conch

god').—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 15′ N. and 74° 29′ E., 27 miles north-by-west of Belgaum town. Population (1901), 5,639. Sankeshwar has a large traffic in cotton, dry coco-nuts, dates, spices, and curry-stuff. The ordinary industry is the weaving of waist-cloths, women's *sārīs*, and blankets. The village contains an old temple of Shankarling and a monastery, which is the seat of one of the Sankarāchāryas of the Smārth sect of Hindus. In 1488 Bahādur Gilāni, the Bahmani governor of the Konkan, broke into rebellion and established his head-quarters here, but subsequently submitted to Mahmūd II. In 1659 Sankeshwar fell to Sivajī. The town contains a boys' school with 177 pupils and a girls' school with 57.

Saundatti-Yellamma.—A joint municipality in Belgaum District, Bombay, including Saundatti (*Sugandhavarti*, 'the sweet-smelling'), the head-quarters of the Parasgad *tāluka*, situated in 15° 46′ N. and 75° 7′ E., and Yellamma, a famous hill of pilgrimage 5½ miles south-east of that town. Population (1901), 9,525. Saundatti is an important centre of trade. The town is commanded by an old fort in tolerable repair. About 2 miles to the south are the ruins of an extensive hill fort called Parasgad, from which the *tāluka* derives its name. The municipality, established in 1876, had an average income during the decade ending 1901 of Rs. 12,400. In 1903-4 the income was Rs. 10,600. The town was formerly the stronghold of the Ratta chiefs (875-1250). It contains a Subordinate Judge's court, a dispensary, and a municipal middle school, besides five other boys' schools with 363 pupils and a girls' school with 55.

Yellamma hill takes its name from a shrine of the goddess Yellamma, which is held in great veneration throughout the Bombay Carnatic. About 100,000 pilgrims visit the shrine annually, women predominating, and many of them come from great distances. On their way to the hill they give utterance repeatedly to a long-drawn cry, '*Ai Yellammo—oh!*' which resounds along the high roads for miles as it is taken up by successive bands of pilgrims. The shrine is built in the bed of the Saraswatī stream, a tributary of the Malprabha. Though locally said to be about two thousand years old, the temple, excluding the sanctuary, appears to have been built in the seventeenth or eighteenth century, on the site of an older building dating from the thirteenth. The temple stands in the middle of a courtyard surrounded by arcades of pointed arches. Fairs are held in honour of the goddess at the full

moon of April–May and November–December. A tax of half an anna is levied from each pilgrim, bringing in a revenue of about Rs. 5,000 to the municipality. In the early days of British rule women came to the shrine naked to pray for children or for the cure of skin disease. Hook-swinging was commonly practised at the shrine, and 175 persons were swung in 1834. Both of these practices have been discontinued. Nothing is known of the origin of the shrine.

Yamkanmardi.—Town in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 8′ N. and 74° 32′ E., 21 miles north of Belgaum town. Population (1901), 4,556. The municipality, established in 1854, had an average income during the decade ending 1901 of Rs. 2,009. In 1903–4 the income was Rs. 2,200. The town is said to have been founded by Virpan Ambājī, a Kolhāpur *māmlatdār*, about 1780. It has about 300 looms, making women's *sārīs*, blankets, &c. A weekly market is held on Tuesday, when dry coco-nuts, dates, grain, wheat, and cloth are chiefly sold. In 1827 a number of Kolhāpur freebooters took refuge in the fort, but surrendered after some show of resistance. The town contains a boys' school with 197 pupils.

Boundaries, configuration, and hill and river systems.

Bijāpur District.—District in the Southern Division of Bombay, lying between 15° 49′ and 17° 29′ N. and 75° 19′ and 76° 32′ E., with an area of 5,669 square miles. On the north it is separated by the Bhīma river from the District of Sholāpur and the State of Akalkot; on the east and south-east it is bounded by the Nizām's Dominions; on the south the Malprabha river divides it from the District of Dhārwār and the State of Rāmdurg; and on the west it is bounded by the States of Mudhol, Jamkhandi, and Jath. The name of the District was changed from Kalādgi to that of Bijāpur in 1885; at the same time the head-quarters were transferred from Kalādgi to Bijāpur town.

Though alike in many respects, the lands of the District may conveniently be divided into two main sections. The Kistna river divides the two tracts for some distance, but they meet and run into one another lower down in the Muddebihāl *tāluka*. Here also is found a third type of country, the Don valley, a well-defined tract. The 40 miles north of Bijāpur town and the greater part of the Sindgi *tāluka* form a succession of low billowy uplands, bare of trees, gently rounded, and falling into intermediate narrow valleys. On the uplands, the soil, where there is any, is very shallow; tillage is confined to the valleys; from every third or fourth upland issues a stream

fringed with wild date-trees. Among the trees are gardens, and beside the gardens stands the village; a little farther on a grove of trees shades the village temple. The barrenness of the country and the dreariness of upland after upland and valley after valley, each like the last, are depressing. During the rainy season, when the uplands are green and the valleys waving with millet, the effect though tame is not unpleasing. In spite of its barrenness the country has excellent water.

The Don valley begins close to the old city of Bijāpur, and crosses the District from west to east. This tract is of rich deep black soil; the rocky trap uplands disappear, the undulations are much longer and more gradual, and in many parts there is a true plain. The villages lie close to the Don river. This valley is badly off for water. In February, when the whole is a sheet of magnificent millet, wheat, and golden *kusumbi* (*Carthamus tinctorius*), the prospect is extremely fine.

South of the Kistna, towards the west, the level of the rich plain is broken by two lines of hills. These are for the most part rounded and sloping, but the steep and quaintly-shaped sandstone cliffs of Bādāmi form an exception to the rule. Between the hills lie wide barren tracts covered with loose stones; but there are also many stretches of light land, well wooded and bright with patches of red and white soil. To the east extends a black plain, as treeless and dull as that north of the Kistna.

The District is well supplied with rivers and watercourses. Of these, the most important are, beginning from the north, the Bhīma, Don, Kistna, Ghatprabha, and Malprabha, all large rivers flowing throughout the year, and, excepting the Don, impassable in the rainy season except by boats. There are also many small streams. The water of the Don is too salt to drink, but the other large streams supply drinking-water of fairly good quality.

Geology.

The whole northern half of the District is occupied by the Deccan trap formation. The south-east portion is occupied by Archaean rocks, both gneissose and schistose, the latter belonging partly to the auriferous Dhārwār series. In the south-west the Archaean rocks are overlaid by ancient unfossiliferous strata known as the Kalādgi beds, corresponding in age with some of the Cuddapah rocks of Madras, of which a portion is contemporaneous with the Bijāwar of Central India. The Kalādgi rocks are mainly sandstones, associated with slates and limestones. The latter are often siliceous, and pass into banded and brecciated jaspers coloured bright red

by hematite, constituting a very characteristic rock in these ancient sediments. To the north of Muddebihāl there are limestone, quartzite, and shale beds and inliers younger than the Kalādgi rocks and known as the Bhīma series, identical with the Kurnool beds, which themselves are related to the Vindhyans.

Botany. The flora is of a distinctly Deccan type. There is a sprinkling of coco-nut and palmyra palms, but the chief liquor-yielding tree is the wild date. Other trees found in the District are the mango, tamarind, *jāmbul*, jujube, plantain, wood-apple, sour lime, guava, myrabolam, *papai*, and sandal-wood; also the African baobab or monkey-bread tree. Among flowering plants are *Cleome*, *Capparis*, *Hibiscus*, *Fagonia*, *Crotalaria*, *Indigofera*, *Cassia*, *Woodfordia*, *Caesulia*, *Echinops*, *Ipomoea*, and *Leucas*.

Fauna. Of wild animals, the hog is very common. The only large game are a few leopards, which find shelter in almost all the ranges south of the Kistna. The wolf and the hyena are generally distributed. The jackal is common everywhere, and the fox in the open undulating plains of Bāgevādi and Muddebihāl. Porcupines abound near Bijāpur, and monkeys, antelope, gazelle, and the common Indian hare occur over most of the District. Of birds, peafowl, the painted partridge, the grey quail, and the rain quail are found in large numbers. The green pigeon is found in Bāgalkot. The common snipe and the jack-snipe are cold-season visitants; the painted snipe appears at times and breeds in the District. The large rivers, except the Don, are fairly stocked with fish.

Climate, temperature, and rainfall. Excluding Bādāmi, where there is much low bushy vegetation, and Muddebihāl, where the ground is marshy, the climate is dry and healthy. March and April are the hottest months, when the thermometer sometimes rises to 109°. In May the intensity of the heat is slightly relieved by occasional thunder-storms and days of cloudy weather. The lowest temperature registered at Bijāpur town is 48° in January, the average being 77°. The rainfall is extremely irregular, varying greatly in both amount and distribution. It is comparatively more regular and certain in Hungund than in other *tālukas*. Bāgalkot and Bādāmi fare well as a rule. The maximum fall is in Muddebihāl with 27 inches, and the minimum in Hungund with 22 inches. The average at Bijāpur town is 24 inches. At almost all times of the year most parts of the District, the Don valley perhaps more than others, are exposed to strong blighting winds.

Seven places within the limits of the District—Aivalli in Hungund, Bādāmi, Bāgalkot, and Dhulkhed in Indi, Galgali in Bāgalkot, Hippargi in Sindgi, and Mahākuta in Bādāmi—are connected with legends of sages and demons, perhaps in memory of early fights between northern invaders and local chiefs. The legends describe these places as within the Dandakāranya or Dandaka forest. The District in the second century A.D. seems to have contained at least three places of sufficient consequence to be noted in the place lists of Ptolemy: namely, Bādāmi, Indi, and Kalkeri. So far as is known, the oldest of these is Bādāmi, a Pallava stronghold. About the middle of the sixth century the Chālukya Pulikesin I wrested Bādāmi from the Pallavas. From the Chālukya conquest of Bādāmi to the Muhammadan invasion, the history of the District includes four periods—an Early Chālukya and Western Chālukya period lasting to about A.D. 760; a Rāshtrakūta period from 760 to 973; a Western Chālukya, Kalachuri, and Hoysala Ballāla period from 973 to 1190, with Sinda underlords in South Bijāpur from 1120 to 1180; and a Deogiri Yādava period from 1190 to the Muhammadan invasion of the Deccan at the close of the thirteenth century. In 1294 a Muhammadan army, led by Alā-ud-dīn, the nephew of Jalāl-ud-dīn Khiljī, emperor of Delhi, appeared in the Deccan, sacked Deogiri (the modern Daulatābād in the Nizām's Dominions, to which place the seat of government had been removed from the south during the Yādava period), stripped Rāmchandra (the sixth king of the Yādava line) of his wealth, and forced him to acknowledge the supremacy of the Delhi king. In the middle of the fifteenth century Yūsuf Adil Shāh founded an independent Muhammadan state with Bijāpur for his capital. From this time the history of the District is that of the town of BIJĀPUR. In 1818, on the overthrow of the Peshwā, the District was granted to the Rājā of Sātāra, and on the lapse of that State in 1848 it passed to the British. At first part of Sholāpur and Belgaum Districts, it was made into a separate District, then named Kalādgi, in 1864. History.

In the seventh century, the Chinese pilgrim Hiuen Tsiang visited Bādāmi, then the seat of the Chālukya dynasty. He described the people as tall, proud, simple, honest, grateful, brave, and exceedingly chivalrous; the king as proud of his army and his hundreds of elephants, despising and slighting the neighbouring kingdoms; the capital full of convents and temples with relic mounds or *stūpas* made by Asoka, where the four past Buddhas had sat, and, in performing their exer-

cises, had left the marks of their feet; heretics of various sects were numerous; the men loved study, and followed the teachings of both heresy and truth. He estimated the kingdom as nearly 1,200 miles (6,000 *li*) in circumference.

Archaeology.

Many inscriptions are found in the District, the principal being at ARASIBIDI (two large Chālukya and Kalachuri inscriptions in Old Kanarese), AIVALLI (A.D. 634), and BĀDĀMI (varying from the sixth to the sixteenth century). The most noteworthy temples are at Aivalli and PATTADKAL. The Meguti temple of Aivalli is remarkable for its simple massiveness, and that dedicated to Galagnāth has a handsomely sculptured gateway. The Pattadkal temples are examples of the Dravidian and Northern Chālukyan styles. The temple of Sangameshwar at Sangam in the Hungund *tāluka* is of great age. BIJĀPUR TOWN is rich in Musalmān buildings of architectural merit. The first building of any size undertaken was the Jāma Masjid (about 1537), which for simplicity of design, impressive grandeur, and the solemn stillness of its corridors, stands unrivalled. The pile of the Ibrāhīm Rauza is most picturesque, and the dome of the tomb known as the Gol-Gumbaz is one of the largest in the world, having an external diameter of 144 feet. It has a most remarkable echo or whispering gallery.

The people.

The Census of 1872 returned the population at 805,834 persons; the next Census of 1881 at 626,889, showing a decrease of 178,945, attributable to the famine of 1876–8. In 1891 the population rose to 796,339, but again fell in 1901 to 735,435. This decrease is attributed to the famine of 1900 and to emigration. The following table shows the distribution of the population by *tālukas* in 1901:—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Indi	838	...	121	75,961	91	− 18	2,554
Sindgi	810	...	144	86,238	106	− 8	2,524
Bijāpur	869	1	94	102,416	118	− 1	4,721
Bāgevādi	764	...	117	83,620	109	− 18	3,106
Muddebihāl	569	1	150	69,842	123	− 14	2,963
Bāgalkot*	683	1	160	123,456	181	+ 4	6,209
Hungund	521	1	160	83,615	160	− 19	5,986
Bādāmi	615	1	167	110,287	179	+ 10	5,524
District total	5,669	5	1,113	735,435	130	− 8	33,587

* Includes Bilgi *petha*.

The chief towns are BIJĀPUR, BĀGALKOT, and TĀLIKOTĀ. Kanarese is the prevailing vernacular, being used by 84 per cent. of the population. Hindustāni and Tamil speakers are also found. Marāthī is only spoken by a few persons in the northern *tālukas*. Classified according to religion, Hindus form 88 per cent. of the total, and Musalmāns 11 per cent.

Castes and occupations.

The Hindus may be classified as Brāhmanical and Lingāyat. The former class comprises Brāhmans (23,000), nearly all Deshasths; Marāthās (20,000), settlers from the Deccan; Berads or Bedars (27,000), mostly fowlers and hunters; Kurubas (107,000), shepherds and cultivators; Kabligars (24,000), ferrymen; Pānchāls (14,000), general craftsmen; and Vaddars (12,000), professional diggers. The Lingāyat class, numbering over 276,000, includes chiefly Ayyas or Jangams (29,000), who are Lingāyat priests; Banjigs (50,000), traders; and Panchamsālis (58,000), an intelligent class of cultivators. These three with their subdivisions represent roughly the original converts to the sect, and form the Lingāyat aristocracy. Among more recent converts, divided into endogamous groups, are Gānigs (42,000), oil-pressers; Reddis (22,000), traders and cultivators; and Holias (28,000), scavengers and labourers. The Musalmāns are chiefly Shaikhs (61,000) and Arabs (17,000). The population is mainly dependent on agriculture, which supports 65 per cent. of the total. About 18 per cent. are engaged in crafts and industries. These are chiefly weavers, and are distributed all over the District. The weavers include various classes and castes, but the principal are Hatkārs, Koshtis, and Padsālis.

Christian missions.

Of 866 native Christians in 1901, 396 were Roman Catholics and 394 Lutherans. The Basel German Evangelical or Lutheran Mission has stations at Bijāpur and Guledgarh, and maintains a girls' orphanage with 70 inmates, an Anglo-vernacular school, and ten primary schools with a total attendance of 605 boys and 157 girls. The Roman Catholic Mission also has its head-quarters at Guledgarh, with branches at Bijāpur, Asangi, and Pattadkal.

General agricultural conditions.

The soil belongs to two main classes, black and red. By far the greater part of the open country consists of black soil which retains moisture. With manure and a proper system of tillage the red sandy mould, which is chiefly found near the sandstone hills of Bādāmi, Bāgalkot, and Hungund, though generally poor, yields fair crops. In some parts of the District a careless system of tillage is followed, portions of many fields being allowed to lie waste and become choked with grass. With the growth of the population up to 1876, the area under cultivation

steadily increased, and tracts which fifty years ago sheltered the more dangerous wild beasts are now tilled fields.

Chief agricultural statistics and principal crops.

The District is chiefly *ryotwāri*. *Inām* and *jāgīr* lands occupy about 650 square miles. The chief statistics of cultivation in 1903–4 are shown below, in square miles :—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forest.
Indi	838	782	5	9	...
Sindgi	810	766	2	9	...
Bijāpur	869	772	4	33	3
Bāgevādi	764	713	3	8	5
Muddebihāl	569	529	...	6	...
Bāgalkot	684	528	1	10	105
Hungund	521	451	...	3	37
Bādāmi	615	407	1	21	139
Total	5,670*	4,948	16	99	289

* Statistics are not available for 18½ square miles of this area. These figures are based upon the latest information.

Jowār, grown both as a rains and as a cold-season crop, holds the first place, with 1,900 square miles under cultivation. It supplies the chief food of the people. *Bājra* and wheat are also grown to a large extent, covering 595 and 249 square miles respectively, the latter chiefly in Bāgevādi, Bijāpur, Sindgi, and Muddebihāl. Little rice (11 square miles) is produced, and it is of an inferior variety. *Rāle-kāng*, or Italian millet, occupied 51 square miles. Pulses occupied 365 square miles, the chief being *tur*, gram, *kulith*, *mūg*, and *math*. The most valuable, and next to millet the most widely grown crop, is cotton, occupying an area of 860 square miles. Castor-oil, linseed, safflower, and sesamum are grown and exported, safflower in considerable quantities.

Improvements in agricultural practice.

Several experiments for the improvement of cotton have been tried in the last fifty years with different kinds of seeds. New Orleans proved successful for a time in brown soils, but it has reverted to the old short staple, the usual experience with exotic seeds. The ryots have availed themselves freely of the Land Improvement and Agriculturists' Loans Acts, and from 1894–5 to 1903–4 nearly 35 lakhs was advanced for improvements and for the purchase of seed and cattle. Of this total 11·3, 5·4, and 6·6 lakhs were lent in 1896–7, 1900–1, and 1901–2 respectively.

Cattle, ponies, &c.

Though there is no lack of grazing, and though the climate is favourable for rearing animals, imported cattle are generally preferred to the local breeds. The finest cattle bred locally

are found in villages bordering the Kistna river. The best imported bullocks, the Mudalshimi, come from Bangalore, Bellary, Chitaldrug, and other places in Madras. Of buffaloes there are two kinds: Gaularu or Gaulis and the ordinary Mhais. The Gaularu buffalo comes from Nāgpur. It has very long horns, and is much stouter and gives better milk than the local buffalo. Sheep include three varieties—Muralgini, Patalgini, and Batgini—the best being found in the Bijāpur *tāluka*. There are two kinds of goats: the Kengori, which come from Madras; and the Kunyi or Gujarāt goat, famous for the quantity and quality of its milk. The District is a poor place for horse-breeding; but in many parts, particularly in the Indi and Sindgi *tālukas*, ponies of a hardy type are cheap.

Of the total area of land cultivated, about 16 square miles or ½ per cent. were irrigated in 1903-4. The areas supplied by various classes of irrigation are: canals, one square mile; tanks, ½; wells, 13¾ square miles; and other sources, 1¼ square miles. The Kendūr reservoir, about 6 miles north of Bādāmi, is the largest and most important of the reservoirs. It is said to have been built before the Muhammadan conquest and has a catchment area of 22 square miles, and, when full, waters 256 acres of land. Of recent irrigation works the reservoir at Muchkundi, 4 miles south of Bāgalkot, is the most important. It is formed by a masonry dam 60 feet in greatest height and 720 feet long. The area of the lake when full is about 1,059 acres, and its contents are 624 million cubic feet. The catchment area is 26 square miles. The gross area commanded by the tank is 5,570 acres; but the tank is not successful, as the catchment area does not supply sufficient water. Up to 1904 it had involved a capital outlay of 1½ lakhs. The area irrigated in 1903-4 was only 49 acres. Other reservoirs are the two Mamdapur tanks, situated about 24 miles south-west of Bijāpur, which together irrigate about 600 acres. They are of considerable age, having been constructed in the days of the Adil Shāhi dynasty, but were repaired at a cost of Rs. 7,500 during the famine of 1899-1902. Tanks are not numerous, and sites in the District are not suitable for small works within the means of the people. In Indi, Bijāpur, and Bāgalkot a large area close to the villages is watered from wells and small streams. The famine of 1876 gave an impulse to well-sinking, but most of the wells were temporary. Their average depth varies from 20 feet in Indi to 100 feet in Bāgalkot. The water in some of the wells in the Don valley is brackish, but is occasionally used for irrigation. There are 6,654 wells and 13 tanks for irriga- Irrigation.

tion, and 10 small irrigation works, supplying about 1,500 acres, for which only revenue accounts are kept.

Forests. The 'reserved' forest lands are mostly on the hills to the south of the Kistna and between the Kistna and Dhārwār. They cover 289 square miles, including 181 square miles in charge of the Revenue department, and may be divided into two sections: scrub forests and *babūl* reserves. The scrub forests are composed chiefly of stunted *mashwala* (*Chloroxylon Swietenia*), *kakkai* (*Cassia Fistula*), *nīm* (*Melia Azadirachta*), *aval* (*Cassia auriculata*), *hulgal* (*Dalbergia arborea*), *khair* (*Acacia Catechu*), *ippi* (*Bassia latifolia*), and *jaune* (*Grewia Rothii*). The *babūl* reserves include the lands which yield *babūl*, *nīm*, bamboo, *jāmbul*, and *bor*. The revenue from forests in 1903-4 was Rs. 9,300.

Minerals. The District of Bijāpur ranks relatively high in mineral wealth. Gold is said to have been found formerly in the Malprabha. Near Kajādoni, 4 miles south-west of Kāladgi, are traces of copper. Iron ore is found in various parts of the District south of the Kistna; but as the cost of smelting makes it dearer than imported iron, it is never sold. Small quantities are used for field tools. Several varieties of gneiss, greenstone, quartzite, sandstone, limestone, clay-slate, and trap are used for building purposes. The extremely beautiful granites and kindred rocks of great variety of colour are capable of taking a high polish.

Arts and manufactures. A large proportion of the people earn a living as weavers, and the peasants add to their income by the sale of hand-woven cloth. The chief manufactures are cotton and silk cloth. In addition to what is used in the District, considerable quantities are sent to Sholāpur, Poona, Belgaum, and the Nizām's Dominions. Blankets are woven to some extent, and are in demand as far as Bombay. Large quantities of cotton yarn and cloth are also dyed and exported. Except the coppersmiths, whose wares are sent out of the District, none of the Bijāpur artisans have a name for special skill in their crafts.

Commerce and trade. The chief articles of import are piece-goods and rice from Sholāpur, coco-nuts and salt from the coast, betel-nuts and spices from Kanara, and molasses from Belgaum. In all *tāluka* head-quarters, and in some of the larger villages, a weekly market is held. Amīngarh is a great mart for cattle and coast produce. Besides the local trading classes, there is a large body of Gujarātī and Mārwāri money-lenders and cloth merchants in the District.

The East Deccan branch of the Southern Mahratta Railway,

Communications. Railways and roads.

opened in 1884, runs through five of the eight *tālukas* of the District, connecting Bijāpur with the more prosperous Districts and trading centres in the north and south. Since the opening of the railway, a network of feeder-roads connecting the principal villages and towns with the stations has been constructed. There are also roads communicating with other Districts, such as the Sholāpur-Bellary road; the Sholāpur-Hubli road from Mira Bay to Sindgi via Amba Ghāt; the Sātāra-Bijāpur and the Belgaum-Ilkal roads. Fifty years ago there were no cart-roads in the District. There are now (1903-4) 748 miles of roads, of which 184 miles are metalled. Except 93 miles of metalled and 74 miles of unmetalled roads in charge of the local authorities, all are maintained by the Public Works department. Avenues of trees are maintained along 361 miles.

Famine.

Owing to its uncertain rainfall, Bijāpur is very subject to failure of crops and consequent scarcity of food. Like the rest of the Deccan, this District was left almost utterly waste and deserted after the Durgā-devī famine of 1396-1407; and in 1791 want of rain again caused a grievous scarcity, which is still remembered by the people as the Skull Famine, the ground being covered with the skulls of the unburied dead. In 1803 the Pindāris stripped the country of food, and the price of millet rose to 2 seers per rupee. In 1818-9 a failure of rain caused great distress and raised the price of millet to 6 seers per rupee. Other years of drought and scarcity were 1824-5, 1832-3, 1853-4, 1863-4, and 1866-7. In 1876-7 the failure of rain was more complete and general in Bijāpur than in any other part of the Presidency. The price of millet rose to 4½ seers per rupee and the price of wheat to 2½ seers. The total cost of the famine in the District was estimated at nearly 26 lakhs, of which 23 lakhs was spent on public works and 3 lakhs on charitable relief. The estimated loss of population caused by death and emigration was 234,000, and about 300,000 head of cattle perished. In 1879 the District suffered from a plague of rats, which destroyed about half the crops, and active measures were taken to reduce their numbers. In 1891 monsoon rain fell only in isolated showers. The result was that the whole of the District suffered from famine, prices being nearly doubled. More than 17,000 persons left their villages to find subsistence. Relief works were opened. In 1896 the District was visited by a more severe famine, during which the numbers on relief rose to 134,000 in September, 1897. Since then the District has passed through a series

of unfavourable seasons. In 1899 severe scarcity swept the District and lasted for months. The real famine was confined to the Indi, Sindgi, and Bādāmi *tālukas*, but intense scarcity was felt in the rest of the District. At the height of the famine in September, 1901, 32,291 persons were on relief works and nearly 14,000 in receipt of gratuitous relief. Relief measures were continued till October, 1902. Including remissions of advances to agriculturists and land revenue, this famine cost the state 32½ lakhs.

District subdivisions and staff.

The District is divided into eight *tālukas*: BĀGEVĀDI, HUNGUND, SINDGI, INDI, BĀDĀMI, MUDDEBIHĀL, BIJĀPUR, and BĀGALKOT. The Collector, who is *ex-officio* Political Agent for the Jath and Daphlāpur States, is aided by two Assistants, who are members of the Indian Civil Service.

Civil and criminal justice.

The District and Sessions Judge at Bijāpur is assisted for civil business by three Subordinate Judges. There are twenty-four officers to administer criminal justice in the District. Theft, housebreaking, and incendiarism are the commonest forms of crime; and in the Muddebihāl and Bāgevādi *tālukas* dwell a considerable number of Chaparbands or counterfeit coiners. These men, who are now classed as a criminal tribe, make lengthy tours over India, coining false money in various places, which is passed into currency by their women-folk. Dacoities are occasionally committed by Mahārs and Māngs, but are not so prevalent in the north of the District as they once were.

Land revenue administration.

As Bijāpur did not become a separate District till 1864, no definite information is obtainable regarding the land management of former rulers. Up to 1843 no attempt was made to revise the Marāthā assessment, but much of the land was measured between 1825 and 1830. The chief characteristics of the old assessment were a high nominal demand and large yearly remissions. The first settlement of the District was commenced in 1843 and completed in 1869. A revision survey settlement was carried out between 1875 and 1889, and the revised rates are now in force. The revision found an increase in the cultivated area of 171 square miles, and enhanced the total revenue from 8·7 to 11·4 lakhs. The average assessment per acre of 'dry' land is 10 annas, of rice land Rs. 3–6, and of garden land Rs. 2.

Collections on account of land revenue and revenue from all sources are shown in the table on the next page, in thousands of rupees.

The District has four municipalities: namely, BIJĀPUR,

BĀGALKOT, ILKAL, and GULEDGARH, their total average income being Rs. 72,000. Outside the municipalities, local affairs are managed by the District board and eight *tāluka* boards. The total income of these boards in 1903–4 was 1·92 lakhs, the chief source being the land cess. The expenditure amounted to 1·66 lakhs, including Rs. 56,000 spent on the construction and maintenance of roads and buildings.

Municipalities and local boards.

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue .	16,10	18,10	12,04	18,82
Total revenue .	19,82	23,72	16,57	23,99

Police and jails.

The District Superintendent of Police is aided by one Assistant and two inspectors. There are ten police stations in the District. The police number 647: namely, 10 chief constables, 141 head constables, and 496 constables. There is a District jail at Bijāpur, with accommodation for 294 prisoners. In addition, 9 subsidiary jails have accommodation for 133 prisoners. The average number of prisoners in these jails in 1904 was 331, of whom 20 were females.

Education.

Bijāpur stands sixteenth among the twenty-four Districts of the Presidency as regards the literacy of its population, of whom 4·6 per cent. (9 males and 0·1 females) could read and write in 1901. In 1888 there were 157 schools with 8,277 pupils. The latter number rose in 1891 to 17,697, including 1,044 in 78 private schools. In 1901 it fell to 15,136, exclusive of 1,281 in 83 private schools. In 1903–4 there were 376 institutions of all kinds attended by 17,657 pupils, of whom 899 were girls. Of the 309 institutions classed as public, 2 are high schools, one is a middle school, and 306 are primary schools. One is managed by Government, 20 by municipalities, 236 by District boards, while 51 are aided and one unaided. The total expenditure on education in 1903–4 was 1·06 lakhs, of which Rs. 17,000 was derived from fees, and Rs. 28,000 from Local funds. Of the total, 84 per cent. was devoted to primary schools.

Hospitals and dispensaries.

There are two hospitals at Bijāpur town, one of which is for females, and seven medical dispensaries in the District, with accommodation for 81 in-patients. In these institutions 52,000 persons were treated in 1904, of whom 478 were in-patients, and 1,097 operations were performed. The total expenditure, exclusive of the female hospital, was Rs. 15,000, of which about Rs. 7,300 was met from Local and municipal funds.

The number of persons successfully vaccinated in 1903–4

Vaccination. was 19,574, representing the proportion of 27 per 1,000 of population, which slightly exceeds the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. xxiii (1884); E. Stack, *Memorandum on Land Revenue Settlements* (Calcutta, 1880).]

Indi Tāluka.—Northernmost *tāluka* of Bijāpur District, Bombay, lying between 16° 56′ and 17° 29′ N. and 75° 33′ and 76° 12′ E., with an area of 838 square miles. It contains 121 villages, but no town, the head-quarters being at the village of INDI. The population in 1901 was 75,961, compared with 92,479 in 1891. The rate of decrease was very high, and the density of population is lower than in other *tālukas*, owing to the poverty of the soil. The demand for land revenue in 1903–4 was 2·03 lakhs, and for cesses Rs. 15,000. Indi is an unbroken and almost treeless plain. Towards the south and south-east near Hutturki, Tāmba, and Shirshad, and along the streams running by those villages, the country is populous and well cultivated and the villages are comparatively rich. The annual rainfall averages nearly 25 inches.

Sindgi.—North-eastern *tāluka* of Bijāpur District, Bombay, lying between 16° 35′ and 17° 12′ N. and 75° 57′ and 76° 28′ E., with an area of 810 square miles. There are 144 villages, including Sindgi, the head-quarters; but no town. The population in 1901 was 86,238, compared with 93,618 in 1891. The density, 106 persons per square mile, is much below the District average. The demand for land revenue in 1903–4 was 2·20 lakhs, and for cesses Rs. 16,000. Except some villages on the Bhīma river, the east of Sindgi is a rough rocky plain, with frequent and, in some cases, abrupt undulations. It is scantily cultivated, treeless, and monotonous. The portion of the *tāluka* on the banks of the Bhīma to the north and east is a plain of black soil. This is well tilled, and, along the river banks, dotted with rich villages. In the south the tract watered by the Don river is the best cultivated portion. The supply of water is scanty. The annual rainfall averages 25 inches.

Bijāpur Tāluka.—Western *tāluka* of Bijāpur District, Bombay, lying between 16° 25′ and 17° 5′ N. and 75° 26′ and 76° 2′ E., with an area of 869 square miles. It contains one town, BIJĀPUR (population, 23,811), the head-quarters; and 94 villages, including BOBLESHWAR (6,300). The population in 1901 was 102,416, compared with 103,718 in 1891. The density, 118 persons per square mile, is a little below the

District average. The demand for land revenue in 1903-4 was 1·62 lakhs, and for cesses Rs. 12,000. The south-eastern portion of the *tāluka*, lying along the Don valley, is very fertile and consists of rich black soil; but the northern region is composed of stony and treeless uplands, unfit for cultivation. A range of unusually lofty uplands lies in the extreme north, and in the south-west are seven low hills. The climate is dry and healthy.

Bāgevādi Tāluka.—Central *tāluka* of Bijāpur District, Bombay, lying between 16° 20′ and 16° 46′ N. and 75° 38′ and 76° 16′ E., with an area of 764 square miles. It contains 117 villages, including BĀGEVĀDI (population, 6,159), the head-quarters, and MANGOLI (5,287); but no town. The population in 1901 was 83,620, compared with 102,444 in 1891. The density, 109 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was 2·19 lakhs, and for cesses Rs. 17,000. The Don valley in the north is very rich black soil; the rest of the *tāluka* is red trap in the uplands and black soil in the hollows. The annual rainfall averages about 25 inches.

Muddebihāl Tāluka.—Eastern *tāluka* of Bijāpur District, Bombay, lying between 16° 10′ and 16° 37′ N. and 75° 58′ and 76° 25′ E., with an area of 569 square miles. It contains one town, TĀLIKOT (population, 6,610); and 150 villages, including MUDDEBIHĀL (6,235), the head-quarters. The population in 1901 was 69,842, compared with 81,572 in 1891. The density, 123 persons per square mile, is slightly below the District average. The demand for land revenue in 1903-4 was 1·53 lakhs, and for cesses Rs. 13,000. In the north of the *tāluka* is the rich valley of the Don. The central plateau of sandstone and limestone is fairly fertile. The south and south-east is a barren tract of metamorphic granite, fertile only close to the Kistna. The annual rainfall averages about 27 inches.

Bāgalkot Tāluka.—South-western *tāluka* of Bijāpur District, Bombay, lying between 16° 4′ and 16° 28′ N. and 75° 26′ and 76° 3′ E., with an area, including the Bilgi petty subdivision (*petha*), of 683 square miles. It contains one town, BĀGALKOT (population, 19,020), the head-quarters; and 160 villages. The population in 1901 was 123,456, compared with 119,033 in 1891. The density, 181 persons per square mile, is higher than in any other *tāluka*. The demand for land revenue in 1903-4 was 1·25 lakhs, and for cesses Rs. 10,000. An area of about 100 acres is protected from famine by the Muchkundi tank, constructed with a capital outlay (to the end of 1903-4)

of over 1½ lakhs. For five years from October, 1903, its water is supplied free for non-perennial crops, a rate of Rs. 8 per acre being charged upon land bearing perennial crops. Bāgalkot has the best climate in the District. The annual rainfall averages nearly 24 inches.

Hungund Tāluka.—South-eastern *tāluka* of Bijāpur District, Bombay, lying between 15° 51′ and 16° 16′ N. and 75° 50′ and 76° 20′ E., with an area of 521 square miles. It contains one town, Ilkal (population, 9,019); and 160 villages, including Amīngarh (7,734) and Hungund (4,775), the headquarters. The population in 1901 was 83,615, compared with 102,894 in 1891, the decrease being attributable to emigration consequent upon famine. The density, 160 persons per square mile, is, however, above the District average. The demand for land revenue in 1903–4 was 1·56 lakhs, and for cesses Rs. 12,000. Except in the south-west, the soil is mostly black and very rich. During the hot months the heat is very oppressive, but during the rest of the year the climate is one of the best in the District. Hungund has a good water-supply, chiefly from the Kistna, Malprabha, and several streams. The annual rainfall averages nearly 22 inches.

Bādāmi Tāluka.—South-westernmost *tāluka* of Bijāpur District, Bombay, lying between 15° 49′ and 16° 9′ N. and 75° 19′ and 76° 32′ E., with an area of 615 square miles. It contains one town, Guledgarh (population, 16,786), and 167 villages, including Kerūr (5,353); the headquarters are at Bādāmi. The population in 1901 was 110,287, compared with 100,511 in 1891, the increase being mainly confined to Guledgarh, which carries on a large manufacture of bodices held in great repute throughout the Deccan and Southern Marāthā Country. The density, 179 persons per square mile, is much above the District average. The demand for land revenue in 1903–4 was 1·31 lakhs, and for cesses Rs. 11,000. The extreme north-west of the *tāluka* lies high, and the surface, which is sandstone overlaid with trap, is undulating without large hills. In the centre, sandstone ranges are separated by plains of red sand. The *tāluka* is poorly supplied with water. The climate is considered the worst in the District. The annual rainfall averages about 26 inches.

Aivalli (*Aihole*).—Old village in the Hungund *tāluka* of Bijāpur District, Bombay, situated in 16° 1′ N. and 75° 52′ E., on the Malprabha, 13 miles south-west of Hungund. Population (1901), 1,638. An axe-shaped rock is shown on the

river-bank in commemoration of the legend of Parasu Rāma, the sixth incarnation of Vishnu, who is said to have washed his axe on the spot after destroying the whole race of Kshattriyas. On a rock in the river are Parasu Rāma's foot-prints. Near these is a fine old temple of Rāmling. An inscription is carved on the rock on the river-bank. On the hill facing the village is a temple dedicated to Meguti, built in the Dravidian style. On the outside of the east wall of this temple is an important stone inscription of the early Chālukya dynasty, dated A.D. 634. Another temple, now known as the Durgā temple, is the only structure in India which preserves a trace of the changes through which the Buddhist cave-temple passed in becoming a Jain and Brāhmanical structure. This also bears an inscription on the outer gateway. Two cave-temples, one Jain, the other Brāhmanical, with images of their respective creed carved in them, are of great interest.

[*Indian Antiquary*, vol. v, p. 67; vol. viii, p. 237; *Epigraphia Indica*, vol. vi, p. 1.]

Amīngarh.—Town in the Hungund *tāluka* of Bijāpur District, Bombay, situated in 16° 3′ N. and 76° 0′ E., about 9 miles west of Hungund. Population (1901), 7,734. The town has a large cattle market. It is also a great trade centre for coco-nuts and rice, which are brought from the sea-coast.

Arasibidi (or 'The Queen's Route').—A ruined and almost deserted village in the Hungund *tāluka* of Bijāpur District, Bombay, situated in 15° 53′ N. and 76° 0′ E., about 16 miles south of Hungund. Here was an old Chālukya capital called Vikrampur, founded by the great Vikramāditya VI (1076–1126), under whom the power of the Western Chālukyas (973–1190) was at its highest. Vikramāditya held Goa, and carried his arms northwards beyond the Narbadā and the Konkan. His kingdom was not less than the Muhammadan kingdom of Bijāpur in its most prosperous times. How long Vikrampur remained a capital is uncertain, but until the Kalachuri usurpation (1151) it probably continued a place of importance. Arasibidi contains two ruined Jain temples, two large Chālukya and Kalachuri inscriptions in Old Kanarese on stone tablets, and the ruined embankment of a lake.

Bādāmī Village.—Village in the *tāluka* of the same name in Bijāpur District, Bombay, situated in 15° 55′ N. and 75° 41′ E., on the Southern Mahratta Railway. Population (1901), 4,482. It is interesting for a Jain excavation and cave-temple ascribed to A.D. 650, together with three caves

of Brāhmanical construction, one of which has an inscription bearing the date A.D. 579. The Jain cave is only 31 feet across by about 19 feet deep. These caves mark the period when Hinduism was reasserting itself, previous to its final triumph over Buddhism in the next century or two. The Narsingha incarnation of Vishnu, seated on the five-headed serpent Anant, and a variety of sculptures, still survive. In one cave-temple the front pillars have three brackets of a wooden-like design, ornamented by male or female figures and dwarfs, of considerable beauty of execution. Some of the pillars are more architectural in their forms, and in the best style of Hindu art. There are two forts, one to the north called Bāvanbande (or 'fifty-two rocks'), and one to the south called Ran-mandal (or 'battle-field'). Both were dismantled about 1845. Its strength and neighbourhood to the sacred Aivalli, Bānshankari, Mahākut, and Pattadkal combine to make Bādāmi a likely site for an early capital. It was probably a Pallava stronghold in the sixth century, and then fell to the Chālukyas. Hiuen Tsiang visited it early in the seventh century. Bādāmi continued for several years in possession of the Vijayanagar kings during the sixteenth century; it then fell to the Marāthās. In 1818 General Munro took it after considerable resistance. In 1840 a band of 125 Arabs from the Nizām's territory, headed by a blind Brāhman, Narsingh, took possession of the village, plundered the Government treasury and market, and carried the booty into the Nizām's territory. Returning, Narsingh commenced administration, but in seven days he was caught, tried, and sentenced with his followers to transportation. Bādāmi contains a boys' school with 163 pupils, and a girls' school with 53.

Bāgalkot Town.—Head-quarters of the *tāluka* of the same name in Bijāpur District, Bombay, situated in 16° 11′ N. and 75° 42′ E., on the Ghatprabha river, and on the Southern Mahratta Railway. Population (1901), 19,020. Bāgalkot is a place of considerable trade, with manufactures of silk and cotton goods and five cotton-presses. At Muchkundi, about 5 miles to the south-west of Bāgalkot, is a large tank, constructed for irrigation. Bāgalkot has three markets—an old market and two Jain and Lingāyat markets. The municipality, established in 1865, had an average income during the decade ending 1901 of Rs. 24,000. In 1903–4 the income was Rs. 23,000. The town contains a Subordinate Judge's court, a dispensary, and a municipal middle school. In early times

Bāgalkot is said to have belonged to the musicians of Rāvana, the demon king of Ceylon. In the sixteenth century it was in possession of the Vijayanagar kings. From 1664 to 1755 it was under the management of the Savanūr Nawāb, from whom it was taken by the Peshwā. In 1778 it passed to Haidar and again to the Peshwās, who in 1810 handad it over to Nilkanth Rao, *Sarsūbahdār*, who held it until General Munro took it in 1818. Under the Peshwās, Bāgalkot had a mint which was not abolished till 1835. The town contains four boys' schools with 558 pupils, and a girls' school with 80.

Bāgevadi Village.—Head-quarters of the *tāluka* of the same name in Bijāpur District, Bombay, situated in 16° 34′ N. and 75° 59′ E., 12 miles from Telgi station on the Southern Mahratta Railway. Population (1901), 6,159. According to one account Bāgevādi was the birthplace of Basava, the founder or reviver of the Lingāyat faith. It has a temple of Basvanna, with shrines of Ganpati, Sangameshwar, Mallikārjun, and Baseshwar. Of the chief wells, one named Basvanna is believed to be of the same age as the Basvanna temple. Bāgevādi is said to have been formerly called Nīlgiri Pattan, and afterwards Bagodi, a contracted form of Bagidā Hode, i. e. a bent ear of *jowār*, to which tradition ascribes the origin of Basvanna. The village contains a dispensary, a boys' school with 167 pupils, and a girls' school with 41.

Bijāpur Town (*Vijayapur*, 'Town of Victory').—Head-quarters of Bijāpur District, Bombay, situated in 16° 49′ N. and 75° 43′ E., on the Southern Mahratta Railway, 350 miles south of Bombay, from which it is reached via Poona and Hotgi. Population (1901), 23,811, including 16,697 Hindus and 6,857 Musalmāns. The municipality was established in 1854, and had an average income during the decade ending 1901 of Rs. 30,000. In 1903–4 the income was Rs. 29,000. The construction of the Southern Mahratta Railway and the transfer of the District head-quarters from Kalādgi have restored to Bijāpur some of its former importance. It has a large grain and cattle trade, and contains four cotton-ginning factories. In the town are situated the chief revenue and judicial offices, a Subordinate Judge's court, two hospitals, of which one is for women, and two high schools, one maintained by Government and the other unaided. In addition, there are nine boys' schools with 383 pupils and three girls' schools with 162.

The past greatness of Bijāpur is attested by the remains of numerous palaces, mosques, tombs, and other imposing works.

The most noteworthy are: the Ibrāhīm Rauza, or tomb and mosque of Ibrāhīm Adil Shāh II; the Gol Gumbaz, or tomb of Muhammad Adil Shāh, the second largest dome in the world; the Anand Mahal; the Asar Mahal; the Jāma Masjid; the Mehtar Mahal; and the Sāt Mazli. The Begam lake near the town, constructed by Muhammad Adil Shāh in 1653, and named after his wife Jahān Begam, as well as the Torvi aqueduct, show how the city was supplied with water in the days of its splendour. The ruins of Hindu temples on the Ark or citadel indicate that Bijāpur was an important Hindu town in pre-Muhammadan times. There are some large pieces of ordnance, including the *Malik-i-Maidān*, a bronze gun in the muzzle of which a man can be seated.

The founder of the Musalmān State of Bijāpur was, according to Firishta, a son of Murād II, the Osmānli Sultān, on whose death his son and successor Muhammad II gave orders that all his own brothers should be strangled. From this fate one only, named Yūsuf, escaped by a stratagem of his mother. After many adventures Yūsuf is said to have entered the service of the Bahmani king of Bīdar, where he rose to the highest offices of state. On the king's death in 1489 he withdrew from Bijāpur, and declared himself its king, with the title of Adil Shāh, the people readily acknowledging his claim. Yūsuf reigned with great prosperity, and included Goa among his dominions on the western coast. This, however, was taken from him by the Portuguese a few months before his death. His resources must have been considerable, as he built the vast citadel of Bijāpur. He died in 1510, and was succeeded by his son Ismail, who died in 1534 after a brilliant and prosperous reign. Mallū Adil Shāh, having been blinded and deposed after an inglorious reign of only six months, made way for his younger brother Ibrāhīm, a profligate man, who died in 1558. He was succeeded by his son Alī Adil Shāh, who constructed the walls of Bijāpur, the Jāma Masjid, or great mosque, the aqueducts, and other works. This ruler joined the Sultāns of Ahmadnagar and Golconda against Rāma Rājā, the minister of the powerful Hindu State of Vijayanagar. Rāma Rājā was defeated in 1565 in a great battle to the south of Tālikotā, and, being made prisoner, was put to death in cold blood, and his capital taken and sacked. Alī Adil Shāh died in 1580. The throne then passed to his nephew Ibrāhīm Adil Shāh II, an infant, whose affairs were managed by Chānd Bībī, widow of the late king, a woman celebrated for her talents and energy. Ibrāhīm, on assuming

the government, ruled with ability. Dying in 1626, after a reign of forty-six years, he was succeeded by Muhammad Adil Shāh, under whose reign Sivajī, the founder of the Marāthā power, rose into notice. Shāhjī, the father of Sivajī, had been an officer in the service of the Sultān of Bijāpur; and the first aggressions of Sivajī were made at the expense of that State, from which, in the interval between 1646 and 1648, he wrested several forts. Soon afterwards he took possession of the greater part of the Konkan. Muhammad, however, had a more formidable enemy in the Mughal emperor Shāh Jahān, whose son and general Aurangzeb besieged the city of Bijāpur, and was on the point of taking it, when he precipitately marched to Agra, drawn thither by intelligence of court intrigues, which he feared might end in his own destruction. After his departure, the power of Sivajī rapidly increased, and that of the Sultān of Bijāpur proportionately declined. Muhammad died in 1656, and was succeeded by Alī Adil Shāh II, who, on his decease in 1673, left the kingdom, then fast descending to ruin, to his infant son Sikandar Adil Shāh, the last of the race.

In 1686 Aurangzeb took Bijāpur, and put an end to its existence as an independent state. Its vast and wonderful ruins passed, with the adjoining country, to the Marāthās during the decline of the Delhi empire. On the overthrow of the Peshwā, in 1818, they were included within the territory then assigned to the Rājā of Sātāra, which lapsed to the British Government in 1848. On the transfer of the head-quarters of the District from Kalādgi to Bijāpur, many of the old Muhammadan palaces were utilized for public purposes; but most of them are now recovering from the rough treatment which they received at the hands of those who devoted them to utilitarian ends. Among the chief works undertaken by Government during the last few years is the restoration of the overhanging sculptured cornices of the Gol Gumbaz, which is still in progress, and of the Jāma Masjid. The unsightly beams which were erected about thirty years ago round the tomb in the Ibrāhīm Rauza to support cracked masonry have now given place to supports more in character with the building, while the Mehtar Mahal, the mosque of Malika Jahān Begam, and the sarcophagus of greenstone have all received attention. The mosque of the Gol Gumbaz, which was used as a travellers' bungalow, has been restored to its former condition, as also the Bokhara mosque, which was for many years occupied by the post office. The upper

storey of the *nagarkhāna* of the Gol Gumbaz is now used as a museum in which all objects of interest discovered in the surrounding country are exhibited.

[For a detailed description of the numerous architectural works found in Bijāpur, see the account given by Fergusson in his *History of Indian and Eastern Architecture*, pp. 557–67; *Bombay Gazetteer*, vol. xxiii; H. Cousens, *Guide to Bijāpur* (second edition, Bombay, 1905); and H. Cousens, 'Notes on the Buildings and Remains at Bijāpur,' *Selections from Records of Bombay Government*, ccxlv (1890).]

Bobleshwar.—Village in the Bijāpur *tāluka* of Bijāpur District, Bombay, situated in 16° 40′ N. and 75° 37′ E., 15 miles south-west of Bijāpur town. Population (1901), 6,300. The present village is said to have been established by the people of the seven surrounding villages, who, finding that it was the resort of dacoits and lawless characters, cut down a *babūl* grove in which a god stood and removed the idol to the temple of Siddheshwar in the middle of the village, built by one Marlingappa Jangamsett about 1780. Outside the village, on the east, is a temple of Ambal Mutiappa, built like a mosque, and with no images.

Guledgarh (*Guledgud*, or 'the emigration hill').—Town in the Bādāmi *tāluka* of Bijāpur District, Bombay, situated in 16° 3′ N. and 75° 47′ E., 9 miles north-east of Bādāmi. Population (1901), 16,786, including suburb (672). There are local manufactures of cotton and silk cloth, which are exported to Sholāpur, Poona, the Konkan, and Bombay. Guledgarh is one of the stations of the Basel Mission. In its neighbourhood are valuable stone quarries. The municipality was established in 1887, and had an average income during the decade ending 1901 of Rs. 12,000. In 1903–4 the income was Rs. 13,000. The town contains a dispensary. The fort was built in 1580 in the reign of Ibrāhīm Adil Shāh II. The present town was built in 1706 on the site of a dry lake. It was besieged and plundered by one of the officers of the Rāstias in 1750. Tipū Sultān took it in 1787. It was again plundered by the Marāthās, when the town was deserted for a time. Repeopled by the Desai, it was again plundered and deserted in the disturbances caused by Narsingh. In 1818 General Munro, through the Desai, induced the inhabitants to return. In 1826 it fell to the British.

Hungund Village.—Head-quarters of the *tāluka* of the same name in Bijāpur District, Bombay, situated in 16° 4′ N. and 76° 4′ E., about 29 miles from Bāgalkot station on the

Southern Mahratta Railway. Population (1901), 4,775. Most of the wells in the place are impregnated with sulphuretted hydrogen. Hungund contains several interesting temples, and two schools, of which one is for girls, with 253 and 57 pupils respectively.

Ilkal.—Town in the Hungund *tāluka* of Bijāpur District, Bombay, situated in 15° 57′ N. and 76° 7′ E., 8 miles south-east of Hungund. Population (1901), 9,019. The municipality was created in 1868, and had an average income during the decade ending 1901 of Rs. 7,700. In 1903–4 the income was Rs. 6,400. A large masonry embankment was constructed in 1886, at a cost of Rs. 15,700, to protect the town from floods. Ilkal is the principal market-town of the *tāluka* and a centre of the weaving and dyeing industries; the staple exports are silk and cotton manufactures and agricultural produce. Cotton cloth, manufactured into *sārīs* for women's dress, is exported to Sholāpur, Poona, Belgaum, and the Nizām's Dominions. There are three modern temples. A yearly fair is held in honour of Bānshankari on the full moon of Paush (January–February). The town contains a dispensary.

Indi Village.—Head-quarters of the *tāluka* of the same name in Bijāpur District, Bombay, situated in 17° 11′ N. and 76° E., on the Southern Mahratta Railway. Population (1901), 4,427. In the *Bhīma Māhātmya* Indi is described as the Paya Kshetra, or 'milk spot,' and Palei was known as Chik Indi, or 'little Indi.' According to a common tradition, its origin is connected with the discovery of a sacred *lingam* through a cow giving milk at the spot where the *lingam* lay buried. There is a shrine of Kanteshwar or Shanteshwar at Indi. In 1790 it was the chief town of a subdivision in the Bijāpur *sārkar*. The village contains a dispensary, two boys' schools with 204 pupils, and a girls' school with 31.

Kalādgi.—Village in the Bāgalkot *tāluka* of Bijāpur District, Bombay, situated in 16° 12′ N. and 75° 30′ E., on the right bank of the Ghatprabha river, 15 miles west of Bāgalkot on the Southern Mahratta Railway. Population (1901), 4,946. Kalādgi was formerly the chief station of the District and a cantonment. The municipality, established in 1866, was abolished after the removal of the head-quarters in 1885.

Kerūr.—Village in the Bādāmi *tāluka* of Bijāpur District, Bombay, situated in 16° 1′ N. and 75° 33′ E., 11 miles north-west of Bādāmi. Population (1901), 5,353. This is a fortified place on the Sholāpur-Hubli road. The fort stands on a gentle

slope about 300 yards south-west of the village. As the village increased, a new market was built to the east of the fort, and a colony of weavers established themselves in a market to the south, where they formerly carried on a flourishing trade. The village and fort contain several temples and a large reservoir.

Mamdāpur.—Historic village in the District and *tāluka* of Bijāpur, Bombay, situated in 16° 32′ N. and 75° 36′ E., 6 miles north of the Kistna river and about 22 miles south-west of Bijāpur town. Population (1901), 2,232. The story goes that Muhammad (1626–56), the sixth Bijāpur Sultān, wished to know what the Konkan was like. His prime minister, the celebrated Jagad-Murāri, built ponds, laid out fields, and planted trees and vegetables from the Konkan on the site of Mamdāpur, which so pleased the Sultān that, about 1633, he united the villages of Antāpur, Barigi, Khāsbāgh, and Chavdāpur, and named the new village after himself, fulfilling the prophecy of a saint, Kamāl Sāhib of Chavdāpur, who had foretold the event. The saint's tomb is in the middle of the market and is highly honoured. In the shrine is the grave of another saint, Sadle Sāhib of Mecca, who died here and in whose honour a fair is held yearly. There are numerous temples. Mamdāpur contains two lakes made by Sultān Muhammad, when the town was built. The great lake is probably the largest existing reservoir of native construction in the Bombay Presidency. When full, its surface area is 864 acres, or $1\frac{1}{3}$ square miles; the dam is 2,662 feet long, or just over half a mile, and its greatest height is 27 feet 9 inches. Except in seasons of unusual drought, the water in this lake lasts throughout the year. The smaller lake, to the east of the large lake, when full has a surface area of 428 acres and a greatest depth of 12 feet; the dam is 1,180 feet long. The inscriptions cut on the dams show that both were built in 1633 at a cost of about 2 lakhs (50,000 pagodas) by Sultān Muhammad.

Māngoli.—Village in the Bāgevādi *tāluka* of Bijāpur District, Bombay, situated in 16° 40′ N. and 75° 54′ E., 15 miles south-east of Bijāpur town. Population (1901), 5,287. It was formerly the head-quarters of the Bāgevādi *tāluka*, but has now declined in importance. The country round Mangoli is very fertile, and the village exports a good deal of wheat, cotton, linseed, and *jowār*.

Muddebihāl Village.—Village in the *tāluka* of the same name in Bijāpur District, Bombay, situated in 16° 20′ N. and 76° 8′ E., about 18 miles from Alimatti station on the Southern

Mahratta Railway. Population (1901), 6,235. The village comprises the site of Parvatgiri to the east and of Muddebihāl to the west, separated by a large drain running north and south. It was founded about 1680 by Parmanna, an ancestor of the present Nādgaunda of Basarkot, and the fort was built by his son Huchappa about 1720. About 1764 it came under the Peshwās, and it was included in British territory in 1818. The village contains a Subordinate Judge's court, a dispensary, two boys' schools with 329 pupils, and a girls' school with 56.

Nandikeshwar.—Village in the Bādāmi *tāluka* of Bijāpur District, Bombay, situated in 15° 57′ N. and 75° 49′ E., 3 miles east of Bādāmi town. Population (1901), 1,127. It is of interest as including Mahākuta, the site of numerous temples and *lingams*. The enclosure in which the Mahākuta temples lie is reached by a steep flight of stone steps, at the foot of which is a doorway guarded by door-keepers said to be figures of the demons Vātāpi and Ilval. The enclosure, which is bounded by a stone wall, is small, but contains numerous temples in various styles, chiefly Chālukyan and Dravidian, many *lingams*, and some snake-stones. In the middle of the enclosure is a pond called Vishnu Pushkarni Tīrth, said to have been constructed by the sage Agastya. In the masonry margin of the pond is a *lingam* shrine, the entrance to which is under water, and in the pond is a *chhatri* containing a four-faced image of Brahma. According to legend the daughter of Devdās, king of Benares, was born with the face of a monkey, and her father was directed in a dream to take her to bathe in the Mahākuta pond. He brought her and built the temple of Mahākuteshwar and some smaller shrines of Mudi Mallikārjun and Virupāksheshwar, all containing *lingams*; and his daughter was cured. To the north-east of the entrance is a shrine of Lajja Gauri, or 'Modest Gauri,' a well-carved black-stone figure of a naked headless woman lying on her back. The story goes that while Devī and Siva were sporting in a pond a devotee came to pay his respects. Siva fled into the shrine and Pārvatī hid her head under the water and stayed where she was. The figure is worshipped by barren women. Outside the enclosure is a pond called Pāpavināshi, or 'Sin-Destroyer,' said to have been built by a seer in the first or *krita* epoch, the water having been produced by the sweat of Mahādeo. A car with large stone wheels stands just outside the enclosure. The Mahākuteshwar temple has six inscriptions on pillars. One, dated in the reign of the Western Chālukya king Vijayāditya (696–733), records a gift by a harlot; another, dated 934 Saka,

records a grant by Bappuvaras, a chief of Katak; and the third records the gift of a pillar as a votive offering.

Pattadkal.—Village in the Bādāmi *tāluka* of Bijāpur District, Bombay, situated in 15° 57′ N. and 75° 52′ E., 9 miles from Bādāmi town. Population (1901), 1,088. It contains several old temples, both Brāhmanical and Jain, with inscriptions dating from the seventh or eighth century, and considered by experts to be pure examples of the Dravidian style of architecture.

Sirūr Village.—Village in the Bāgalkot *tāluka* of Bijāpur District, Bombay, situated in 16° 6′ N. and 75° 48′ E., 9 miles south-west of Bāgalkot town. Population (1901), 4,946. It contains five temples and a number of inscriptions dating from the eleventh and twelfth centuries, some of which relate to a Kolhāpur family feudatory to the Chālukyas.

Tālikotā.—Town in the Muddebihāl *tāluka* of Bijāpur District, Bombay, situated in 16° 28′ N. and 76° 19′ E. Population (1901), 6,610. There is a local industry in superior carpets or *jājams*. The celebrated battle of Tālikotā was fought on the right bank of the Kistna, about 30 miles south of the town, on January 23, 1565, in which the power of the Hindu empire of Vijayanagar was destroyed by a confederacy of the Musalmān Sultāns of the Deccan. The battle was named after Tālikotā, as it was the place from which the allies marched to meet the Vijayanagar army. About 1750 the third Peshwā gave the town as a *saranjām* estate to his wife's brother, Rāstia, who built the markets called Anandrao and Kailās Pyati. On the fall of the Peshwā in 1818, Rāstia made Tālikotā his head-quarters and built the present mansion, two mosques, and a temple of Siva. The Jāma Masjid is a ruined building with Jain pillars. A modern mosque is called Panch Pīr, as it contains five tombs said to belong to five officers of the Delhi army. The tombs are venerated by both Hindus and Musalmāns, the Hindus referring them to the Pāndavas, probably on account of their number. The temple of Siva is old, and contains a *lingam* and some Jain images. Slates are found in the bed of the river.

Boundaries, configuration, and hill and river systems.

Dhārwār District.—District in the Southern Division of the Bombay Presidency, lying between 14° 17′ and 15° 53′ N. and 74° 43′ and 76° 2′ E., with an area of 4,602 square miles. It is bounded on the north by the Districts of Belgaum and Bijāpur; on the east by the Nizām's Dominions and the Tungabhadra river, which separates Dhārwār from the Madras District of Bellary; on the south by the State of Mysore; and

on the west by the District of North Kanara. Its greatest length from north to south is 116 miles, and its greatest breadth 77 miles.

Dhārwār District is roughly divided into belts, characterized by differences of configuration, soil, and products. The Belgaum and Harihar road may be considered the dividing line. To the north and north-east of that road, in the *tālukas* of Navalgund, Ron, and the greater part of Gadag, spread vast unbroken plains of black soil, which produce abundant crops of cotton. In the south-eastern portion of this plain are the Kappat hills; and again, after passing over a stretch of black soil in the Karajgi *tāluka*, there is an undulating country of red soil, which reaches to the frontier of Mysore. The western belt of the District is traversed by low hills, extending from the southern bank of the Malprabha river to near the Mysore frontier. This tract consists of a succession of low ranges covered with herbage and brushwood. The ranges are separated by flat valleys; and it is to these valleys and the lower slopes of the hills that cultivation is chiefly confined. Farther west, the country becomes still more hilly, and the trees increase in size towards the frontier of North Kanara. The *tālukas* of Hāgnal and Kod, to the south of Dhārwār town, present almost the same appearance—small hills rising out of the plain in all directions with fertile valleys between. The number of tanks in these *tālukas* is a special feature in the landscape; but, with some marked exceptions, they are small and shallow, retaining water for not more than three or four months after the rains.

From its position on the summit of the watershed of the Peninsula, Dhārwār is devoid of large rivers. Of its seven principal streams, six run eastwards towards the Bay of Bengal, and one penetrates the Western Ghāts to the Arabian Sea. The Malprabha, for about 20 miles, forms the northern boundary of the District, dividing it from Bijāpur. The Bennihalla has its source about 20 miles south of the town of Hubli, and flowing northwards through the central plain of the District falls into the Malprabha. Its water is brackish, and soon dries up. The TUNGABHADRA, on the south-eastern frontier, divides Dhārwār from Mysore and Bellary in Madras. The Varadā, a tributary of the Tungabhadra, passes from the south-west to east through two of the southern *tālukas*. The Dharma crosses Dhārwār in the south, and eventually joins the Varadā. The Kumadvati flows north-east through the Kod *tāluka*, falling into the Tungabhadra near Holinveri. The

only stream flowing west is the Bedti Nullah or Gangāvali, which passes through the Kalghatgi *tāluka*. None of these rivers is navigable, and the only one used for irrigation is the Dharma in the Hāngal *tāluka*.

Geology. Nothing very definite is known of the geology of Dhārwār, though it contains some rocks of considerable scientific and economic importance. Sandstone belonging to the Kalādgi (Cuddapah) group occupies all the north-east corner of the District. It also forms the summits of Navalgund and Nargund hills, on which it appears in large tabular masses. Laterite occurs in different parts, but chiefly in the west. Throughout the remainder of the District the rocks exposed are almost exclusively Archaean, belonging to an extremely varied set of gneisses and crystalline schists. Some of the latter, which have the appearance of being partly altered sediments, have been separated under the name of the Dhārwār series. They consist of hornblendic and chloritic schists, phyllites, and conglomerates, associated with banded jasper and hematitic quartzites. The foliation of the schists is parallel to that of the surrounding gneiss. The Dhārwār series is of extreme economic importance, as all the auriferous quartz veins known in India traverse rocks belonging to this system. Two great bands cross the District with a north-north-west and south-south-east strike, the western band passing through Dhārwār and from there to Harihar, the eastern passing Dambal. A great portion of the course followed by these outcrops is conjectural, and rests only upon a small number of observations at distant intervals. This applies specially to the western band between Dhārwār and Harihar, as this area has never been geologically examined. Numerous basic dikes traverse the gneiss area. They belong to two different formations: some of them are intrusions of the Deccan trap volcanic period; the others belong to a much older period of volcanic activity, contemporaneous with a part of the Cuddapah formation corresponding in age with the Bijāwar group.

Botany. Teak prevails throughout the whole of the Dhārwār, Kalghatgi, and Bankāpur forests; but towards Hāngal it almost disappears. Many kinds of bamboos also occur. In the scrub jungle of the dry stony hills the chief trees and bushes are *bandurbi* (*Dodonaea viscosa*), *khair*, *phulāte babūl* (*Acacia Latronum*), and *babūl* (*Acacia arabica*). Other important trees and plants are *hirda* (*Terminalia Chebula*), *umbar* (*Ficus glomerata*), *apta* (*Bauhinia racemosa*), *nana* (*Lagerstroemia macrocarpa*), *sisu* (*Dalbergia latifolia*, *chandan* (*Santalum album*), *chinch*

(*Tamarindus indica*), and *bhirand* (*Garcinia purpurea*). The chief fruit trees are the fig, plantain, citron, cashew-nut, *jāmbul*, *phanas* (*Artocarpus integrifolia*), mango, lime, guava, sweet-sop, custard-apple, and coco-nut. Many exotic plants, flowers, and vegetables are grown near Dhārwār town.

Fauna. Almost every kind of game found in Southern India occurs in Dhārwār. Tigers are found in the Dhārwār, Kalghatgi, Hāngal, and Bankāpur forests. The leopard and the leopard-cat haunt the western forests, and leopards are common in the Kod and Gadag hill ranges. The black bear and bison are found occasionally. *Chītal* or spotted deer, the four-horned or ribbed-face deer, the mouse deer or *pisai*, wild hog, wolf, and jackal, are of common occurrence. The otter lives in most large rivers and streams. The porcupine and the hare are very common in the hilly and forest parts. Of game-birds, duck, teal, snipe, and quail are numerous, bustard and florican are less common, and sand-grouse abound in the red-soil *tālukas*. The rivers, streams, and lakes are fairly stocked with fish.

Climate and temperature. The climate is about the healthiest in the Bombay Presidency. In December and January dews are heavy and general. From February to the middle of April is the hot season, and from the latter date to the beginning of June, when the regular rainy season sets in, showers are frequent. Except in November and December, when strong winds blow from the east, the prevailing winds are from the west, south-west, and south-east. The temperature in January does not exceed 80°; in May it occasionally reaches 98°, falling to 91° in the rainy season.

Rainfall. The rainy season lasts from June to December. Its long duration is due to the occurrence of rain during the prevalence of both the south-west and north-east monsoon winds. The former cease in October and are followed by cool north-east breezes which gradually bring rain, heavy in the east, and extending even as far west as Dhārwār town in occasional showers during November and December. In the Kod and Rānībennur *tālukas* the rainfall of the two seasons is about equal. On the whole, Dhārwār District shares both monsoons in a greater degree than any other District of the Presidency. The maximum fall is in July (6 inches) and the minimum (less than half an inch) in February. The average for the whole year is 33 inches.

History. The traditional history of Dhārwār goes back to the Pāndavas, who are locally believed to have lived in Hāngal. Copperplate inscriptions seem to show that in the first century before Christ

parts of Dhārwār were under the rulers of BANAVĀSI in North Kanara. The Andhrabhrityas of Banavāsi were succeeded by the Gangā or the Pallava kings, who in turn gave place to the early Kadambas, a Jain family that held sway in Banavāsi until the sixth century. The subsequent early history of the District may be divided into three periods: the Early Chālukya and Western Chālukya until 760, the Rāshtrakūta until 973, and the Western Chālukya again (973–1165), Kalachuri (1165–84), Hoysala (1192–1203), and Deogiri Yādava (1210-95), during which it was governed by feudatory Kadambas, whose headquarters were at Banavāsi and Hāngal. In 1310 Malik Kāfūr laid waste the Carnatic, and the southern Districts were again invaded by Muhammad bin Tughlak. The District next became part of the newly established kingdom of Vijayanagar, and subsequently was an object of the ambition of the Bahmani dynasty of the Deccan, who at times captured and held the fort of Bankāpur. Shortly before the battle of Tālikotā the District seems to have been conquered by the Bijāpur Sultāns, who ruled it until Aurangzeb overthrew the Adil Shāhi dynasty in 1686. To the Marāthās Dhārwār became an object of plundering raids, Hubli being sacked by Annājī Dattu in 1673, and the country devastated by Bājī Rao in 1726. The Marāthās, who had thus on several occasions asserted their claims to succeed to the remnants of Mughal authority in Dhārwār, were in 1764 dispossessed by Haidar Alī, but again became masters on the defeat of the latter by Mādhav Rao Peshwā in the succeeding year. And though Haidar, followed by Tipū, repossessed himself of the District for a time, the Peshwās held it from 1790, when they captured Dhārwār with British assistance, until their downfall in 1817. In 1836 the District was reduced by the separation of what is now Belgaum. Since then the only noticeable incident has been the rising of the Nargund chief in 1857–8, which resulted in the death of the Political officer, Mr. Manson, and the forfeiture of the Nargund estate.

Archaeology.

Dhārwār is full of fine examples of Chālukyan architecture, nearly every village possessing at least one old sculptured temple. Inscription slabs and memorial stones of the Chālukyan dynasty abound. The chief centres of such work are GADAG, LAKKUNDI, Dambal, HĀVERI, and HĀNGAL. There are many old forts scattered through the District, and a few religious buildings, elaborately sculptured, and of beautiful though somewhat heavy design. Other places with buildings bearing inscriptions of interest, in addition to those already mentioned,

are ANNIGERI, BANKĀPUR, Chaudadāmpur, Lakshmeshwar, and NAREGAL. Almost all of these places, though now greatly reduced in importance, contain ruins of beautiful stone temples dating from the ninth to the thirteenth centuries, built without mortar in what is locally known as the Jakhanāchārya style. Jakhanāchārya is said to have been a prince who, having accidentally killed a Brāhman, employed twenty years in building temples from Benares to Cape Comorin to atone for the sin of Brāhman-killing. In style and date the Jakhanāchārya temples correspond to the Hemādpanti temples in Khāndesh, the North Deccan, Berār, and the Central Provinces.

In 1872 the population of the District was 999,190, while the Census of 1881 returned 893,495 persons, the decline being due to the famine of 1876. The population of the District in 1891 and 1901 was 1,051,212 and 1,113,298 respectively. The following table gives statistics of population in 1901:— The people.

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Navalgund	565	3	83	94,709	168	−11	7,049
Ron	432	2	84	103,298	239	+12	6,880
Dhārwār	430	2	129	126,797	295	−0.2	9,874
Hubli	311	1	74	124,258	399	+5	11,251
Gadag	699	2	98	137,573	197	+10	9,695
Kalghatgi	275	...	99	53,657	195	−3	1,850
Bankāpur	344	1	144	90,361	263	+6	6,106
Karajgi	441	1	127	104,342	237	+16	6,803
Hāngal	300	1	156	77,784	259	+4	3,477
Kod	400	...	176	96,245	241	+14	4,202
Rānībennur	405	3	116	104,274	257	+12	7,436
District total	4,602	16	1,286	1,113,298	242	+6	74,623

The chief towns are HUBLI, DHĀRWĀR, GADAG, RĀNĪBENNUR, NARGUND, NAVALGUND, and BANKĀPUR. Village sites in the Navalgund *tāluka* are far apart and much scattered, and the density there only reaches 168 persons per square mile. Of the total population, 86 per cent. are Hindus, 12 per cent. Musalmāns, and one per cent. Jains. Christians number 4,742, including 686 Europeans and Eurasians. Kanarese is the vernacular language of the people, though the Dhārwār dialect is not so pure as that spoken in Kanara itself. By many of the better classes Marāthī is understood; and Hindustāni is known to a few.

Castes and occupations.

The population of the District consists largely of Lingāyats, who are found in all parts, with a total strength of 437,000. It

is generally supposed that the Lingāyats date from the twelfth century, when a religious reformer, Basava, of Kalyāni in Hyderābād State, first brought into prominence this sect of Siva worshippers, whose peculiar mark is the wearing of the *lingam* or phallic emblem. In origin the movement was anti-Brāhmanical, and caste distinctions were entirely ignored by the earlier converts. These are now represented by the Panchamsālis, who form a group of intermarrying sub-castes, consisting of Ayyas or Jangams (53,000), Banjigs (45,000), and other Panchamsālis (164,000). Ayyas are usually priests, and Banjigs are traders. Below these divisions are a number of functional groups that do not intermarry, and seem to represent converts who joined the sect when caste prejudice had re-established itself. The principal Lingāyat divisions of this description are Sadars (53,000), Ganigs (26,000), Nonabars (10,000), Kurvinshettis (8,800), and Kudavakkals (8,500). Of these, the Ganigs are oil-pressers and sellers, the Kurvinshettis are weavers, and the other groups are cultivators. At the bottom of the social ladder are a few functional divisions, such as the Agasas or washermen, Chalvadis, Dhors, and other unclean castes, who are not admitted to full rites. It is supposed that the Lingāyats were largely converts from Jainism, which was prevalent throughout the Southern Marāthā country when the sect first came into prominence. They are an orderly and peaceful community, over-fond of litigation, but leading sober and industrious lives. Brāhmans number 35,000, being mainly Deshasths (29,000). Dhangars and Kurubas (herdsmen) are numerous (105,000). Marāthās (53,000) and Pānchāls (21,000) are the other important Hindu castes. Among low castes are Māngs (38,000) and Mahārs (15,700). The Berads (68,400) are a wandering tribe of criminal habits, for which they have been noted in history since they plundered the ruins of Vijayanagar. Vaddars, or stone- and earth-workers, number 17,600. The majority of the population are supported by agriculture, which is the means of subsistence of 62 per cent. General labour supports 4 per cent. Under industries the cotton-weavers alone are of importance, weavers and their dependents numbering 36,000.

Christian missions. Of the 4,056 native Christians in 1901, 2,671 are Roman Catholics, and 1,000 belong to the Anglican communion. There are three Christian missions in the District. The chief one is subordinate to the Basel German Mission, with resident missionaries at Dhārwār, Hubli, and Betigeri-Gadag, and congregations at the villages of Unkal, Malasamudra, and Shagoti.

The second mission is subordinate to the Roman Catholic Bishop of Poona, and has resident missionaries at Dhārwār, Hubli, Gadag, Alnāvar, and Tumrikop. The third mission is that of the Church of England, which is under the supervision of the Bishop of Bombay and is largely financed by the Society for the Propagation of the Gospel. This mission has congregations at Dhārwār, Hubli, and Betigeri-Gadag, with resident missionaries at the two latter places; in 1904 the number of native Christian adherents was 300 to 400.

General agricultural conditions.

The soil of the District may be divided into three classes: namely, red soil, black soil, and a rich brown loam. The red soil is a shallow gravelly deposit, formed by the disintegration of hills and rocks; the black soil is the well-known *regar*, or cotton soil, on which the value of Dhārwār as a cotton-producing area depends; and the brown loam is found chiefly in the west of the District, once the site of large forests: it is supposed to be chiefly of vegetable origin, and is of little depth. A field of black soil requires only one ploughing in the year, and is seldom manured. A field of red soil, on the other hand, is ploughed three or four times, and is generally manured.

Chief agricultural statistics and principal crops.

The District is chiefly *ryotwāri*. About 400 square miles are *inām* or *jāgīr* land. The chief statistics of cultivation in 1903-4 are shown below, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forest.
Navalgund	565	541	...	24	...
Ron	432	350	1	13	2
Dhārwār	430	300	7	28	45
Hubli	311	282	3	20	6
Gadag	699	585	2	38	60
Kalghatgi	275	170	5	22	75
Bankāpur	344	272	13	26	35
Karajgi	442	352	4	44	26
Hāngal	299	214	62	36	31
Kod	400	301	39	48	38
Rānībennur	405	296	2	43	53
Total	4,602*	3,663	138	342	271

* Statistics are not available for 119 square miles of this area.

The staple food-grain of the District is *jowār* (902 square miles), which is the most widely grown crop everywhere except in Kalghatgi, Hāngal, and Kod, where irrigated rice occupies the first place. Rice is the most prominent crop of the western *tālukas*, occupying 239 square miles, nearly half of which is irrigated. Wheat is grown in the northern *tālukas*, covering 414 square miles. Pulses covered 346 square miles, the chief

kinds being *tur*, gram, *mūg*, and *kulith*. Oilseeds occupied 150 square miles, being commonest in the Navalgund, Gadag, and Ron *tālukas*. Cotton, indigenous and exotic, is the most important crop of the great black-soil plain in the north and east, and was grown in 884 square miles. Sugar-cane and chillies are extensively cultivated. In the south-west are rich gardens of areca-nut and coco-nut palms.

Improvements in agricultural practice.

Dhārwār District stands first in the Presidency for its cotton, which is highly esteemed. As early as 1819 proposals were made for sowing Brazilian and North American cotton seed; but no definite step was taken until 1829, when an experimental farm was started by Government. The plants, however, suffered greatly from blight; and except for the opening of a small trade with China in 1830, the results were so discouraging that in 1836 the experiments were brought to a close. In 1840, at the instance of several commercial bodies in England, three American planters were sent to Bombay, who by 1843 had opened an experimental farm for American cotton five miles north-east of Hubli. In spite of unsatisfactory results at the outset, the farm prospered, and by 1845 2,749 acres were under exotic, chiefly New Orleans, cotton. In that year another farm was opened near Gadag, which met with remarkable success, and in 1846–7 local dealers began buying American cotton on their own account at rates considerably higher than for indigenous cotton. In 1857–8 American cotton covered 130,880 acres, and experiments were also made with Egyptian cotton, which, however, gave poor results. About 1860 the practice of adulterating Dhārwār exotic cotton with indigenous cotton became so widespread that the Bombay Cotton Frauds Act, IX of 53, was passed, while at the same time the American Civil War and the resulting cotton famine in Lancashire led to an enormous increase of the area under cultivation. Attention was again directed to the question of improving the Indian cotton supply, and fresh experiments were carried out in Dhārwār under trained European supervision between 1868 and 1878.

Advances under the Land Improvements and Agriculturists' Loans Acts amounted during the decade ending 1903–4 to 16·8 lakhs, out of which 3·2 lakhs was lent in 1896–7, 2·5 lakhs in 1899–1900, and 2·4 lakhs in 1900–1.

Cattle, ponies, &c.

With the exception of a superior class of buffaloes bred in Navalgund, the District is not famous for cattle- or buffalo-breeding. The bullocks in use are of three kinds: two inferior kinds of indigenous breed, and large well-made animals im-

ported from Mysore for which very high prices are sometimes paid. Sheep and goats are reared by professional shepherds for local use, and are rarely exported. The ponies of Dhārwār were formerly held in great repute; but during the Persian and Abyssinian campaigns the District was almost denuded of the breed, and at present a smaller, often ill-formed, and more vicious class of pony has taken its place. Donkeys are used by washermen and Vaddars for pack-purposes.

Irrigation.

Of the total cultivated area, 138 square miles, or 4 per cent., were irrigated in 1903-4. The various sources are: Government canals 9 square miles, tanks 117 square miles, wells $4\frac{1}{2}$ square miles, and other sources $7\frac{1}{2}$ square miles. Most of the ponds and reservoirs in the District are old works believed to date from the Vijayanagar period (1336-1565). Of these the chief are at Hāveri in Karajgi, at Nāgnur in Bankāpur, and at Dambal in Gadag. The Hāveri lake is one of the largest and most important reservoirs in the District. The Nāgnur lake has an earthen dam 3,400 feet long, but is so shallow that on an average the water lasts for only six months after the rains cease. The Dambal lake is said to be about three hundred years old, and most of the masonry consists of stones taken from Jain or Chālukyan temples. It commands a gross area of 40 square miles. The only important system of canal-irrigation is on the south bank of the Dharma river. The head-works are at Sringeri in Mysore. A solid masonry weir thrown across the stream raises the water a few feet and two canals are led off, one on each bank. The left-bank canal, called the Kamanhalli canal, is about 3 miles long; the right-bank canal, known as the main Dharma canal, is 17 miles long. The chief Government irrigation works are: the Madag lake, situated in Mysore limits, irrigating 922 acres of land; the Dambal, irrigating 338 acres; Medleri, irrigating 52 acres; and Asundi, irrigating 289 acres. The capital outlay on these works up to 1903-4 was about 4 lakhs. The supply obtainable from wells is insufficient. In most parts the water-bearing strata lie far below the surface, occasionally as deep as 80 or 90 feet, while the water obtained is brackish. Parts of Navalgund and Ron are very scantily supplied with water. The District contains (1903-4) 4,835 wells and 2,752 tanks used for irrigation. There are 47 works for which revenue accounts only are kept, irrigating 85 square miles.

Forests.

A large portion of Dhārwār is almost treeless. The forest area (371 square miles, including 156 square miles in charge of the Revenue department) belongs to two divisions...

'moist' forests in the western *tālukas* of Dhārwār, Kalghatgi, Bankāpur, and Hāngal; and the 'dry' forests in the eastern and southern *tālukas* of Gadag, Karajgi, Rānībennur, and Kod. Hubli and Navalgund are bare of trees. Strict conservation with replanting is now being carried on in the Government Reserves. A great part of these are also valuable as grazing ground for cattle. Considerable quantities of sandalwood are found, especially in the 'moist' forests. Teak is also found in the 'moist' forests, except in Hāngal. The other principal trees have been mentioned above under Botany. The forest revenue in 1903-4 was about Rs. 60,500.

Mines and minerals. In former times gold is said to have been obtained in abundance, and even now the Kappat range in the neighbourhood of Dambal in the east of the District, and the beds of streams issuing from it, yield some gold. Steps are being taken to work the auriferous quartz veins in the Gadag hills by modern methods. In the hills in the west of the District iron was formerly smelted in considerable quantities. Owing, however, to the great destruction of timber, fuel has become scarce, and this industry is now carried on only to a limited extent. The iron made is of superior quality, but cannot as a general rule compete in cheapness with imported iron. Manganese is found in considerable quantities.

Arts and manufactures. The manufactures consist of cotton and silk cloth, and the usual household utensils and ornaments. Common silk and cotton cloth are woven to a considerable extent in all the large towns. Fabrics of delicate texture and tasteful design are occasionally produced. Fine cotton carpets are manufactured at Navalgund, both for home consumption and for export to the neighbouring Districts. The wild aloe grows well, and the manufacture of matting from its fibre has been carried on at the jail with success. In the town of Dhārwār there is also a considerable manufacture of glass bangles from blocks of rough blue and green glass imported from Bellary. At Hubli and Gadag there are cotton-ginning and pressing factories employing about 780 operatives. There are also three cotton-spinning mills, two at Hubli and one at Gadag, with a total capital of 16 lakhs. The annual out-turn is nearly 4,000,000 lb. of yarn, from 48,000 spindles, and about 1,600 operatives are employed daily.

Commerce and trade. The chief centres of trade are Hubli and Dhārwār town in the west, Navalgund in the north, Gadag in the east, and Rānībennur in the south. Cotton is the chief article of export, and European goods, chillies, coco-nuts, molasses, and betel-

nuts are imported from Kanara and Mysore. The local trade in *jowār* is also considerable. The majority of the traders are local capitalists, a few representing firms in Bombay and other important places. Except some Pārsīs in the town of Dhārwār, they are by caste generally Brāhmans or Lingāyats, a few being Muhammadans, Gūjars, &c.

Communications. Railways and roads.

The main line of the Southern Mahratta Railway traverses the District, entering near Alnāvar and running due east through Hubli and Gadag. From Hubli one branch runs south-eastward, entering Mysore territory near Harihar; and from Gadag a second branch runs north toward Bijāpur. In no part of the Bombay Presidency has more been done of late years to improve communications than in Dhārwār. Fifty years ago there were neither roads nor carts. In 1903-4 the total length of metalled roads was 337 miles and of unmetalled roads 995 miles. All these, except 113 miles of metalled and 442 miles of unmetalled roads in charge of the local authorities, are maintained by the Public Works department. The District is connected with the ports of Kumpta, Kārwār, and Vengurla by excellent roads, the distance from the western sea being about 100 miles.

Famine.

From the earliest date of which historical record is available, Dhārwār District appears to have suffered from famines of more or less severity. Between 1787 and 1796 a succession of droughts, accompanied by swarms of locusts, occurred. This period of famine is said to have been at its height about 1791-2. The people were forced to feed on leaves and berries, and women and children were sold or deserted. The next famine was in 1802-3, occasioned by the immigration of people from the valley of the Godāvari and the march of the Peshwā's army through the country. In 1832, from want of rain, prices ruled very high, but the distress cannot be said to have amounted to famine. Owing to successive bad seasons, famines occurred in the years 1866 and 1877, and it was found necessary to employ large numbers of people on works of public utility. In 1877 the District suffered very severely. At the height of famine in June, 1877, there were 57,000 persons on relief works and 16,000 in receipt of gratuitous relief. The total cost of the famine in this District exceeded 13 lakhs. In 1891 the rainfall was capricious, and relief measures became necessary in parts of Gadag, Ron, and Navalgund. In 1896 the *kharīf* rains were very light and the District suffered partially (857 square miles or one-fifth of the total area). The last scarcity was in 1900, when the area

affected was 357 square miles or one-twelfth of the total area. Relief works were opened in December, 1899, and were continued till December, 1901, but the number relieved reached only 2,000 at the worst period of distress. In October, 1878, swarms of rats appeared, chiefly in the black-soil tracts, and devoured a part of the cold-season crop. They reappeared in 1879, when at a cost of over Rs. 95,000 large numbers were killed and the harvest saved.

District subdivisions and staff.

The District is divided into 11 *tālukas*, with 2 *pethas* or petty subdivisions. These are DHĀRWĀR, HUBLI, GADAG (including Mundargi *petha*), NAVALGUND (including Nargund *petha*), BANKĀPUR, RON, RĀNĪBENNUR, KOD, HĀNGAL, KARAJGI, and KALGHATGI. The administration is entrusted to a Collector and four Assistants, of whom three are members of the Indian Civil Service. The Collector is *ex-officio* Political Agent for the Savanūr State.

Civil and criminal justice.

The District and Sessions Judge at Dhārwār is assisted by an Assistant Judge and four Subordinate Judges, who dispose of the civil work of the District. The Subordinate Judge of Dhārwār exercises a special jurisdiction over the whole District in suits of more than Rs. 5,000 in value. The other Subordinate Judges try suits of less than Rs. 5,000 in value. The District Court is chiefly a court of appeal. All the Subordinate Judges exercise the powers of a Court of Small Causes. There are altogether 35 officers in the District to administer criminal justice.

Land revenue administration.

The foundation of the system of assessment in force under the Bijāpur (1550–1686), the Savanūr (1686–1752), and the Marāthā governments (1752–1817) was laid during the reign of the Vijayanagar king Krishna Rāya (1509–29). He originated the unit of land assessment and measurement known as the *rāya-rekha* or 'royal line,' which the Bijāpur Sultāns took as the *rakam* or 'basis' of their settlement. In the Vijayanagar settlement 'dry' lands alone were measured, the area of a 'wet crop' being estimated by the *khandis* or measures of seed required to sow it. The Bijāpur government increased the share claimed from the ryot by cesses, which were introduced from time to time nominally to last for a short period, but in practice became permanent. The Savanūr Nawāb, Halīm Khān, increased the assessment rates and reduced the country to great distress. From the acquisition of Dhārwār in 1818 till 1843 the original assessment remained without revision. Before the survey settlement was begun in 1843 less than half of the arable Government area was held for tillage. Owing

to the introduction of lower rates under the survey settlement, the collections in the settlement year showed a fall of about 30 per cent. When the settlement was completed in 1850, the occupied area was about two-thirds of the total arable area. Two years later the revenue for the first time exceeded the revenue collected in the year immediately preceding the introduction of the settlement. Since that date the progress of the District has been practically unbroken, and revenue collections rose from 10·5 lakhs in 1843–4 to 14·3 lakhs in 1873–4. The revision survey, carried out between 1874 and 1902, showed an increase in cultivable area of 41,000 acres, and raised the revenue on Government occupied land from 13 to 19 lakhs. The average rate of assessment per acre of 'dry' land is Rs. 1–1, of rice land Rs. 2–15, and of garden land Rs. 6–12.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	29,21	30,30	29,39	29,06
Total revenue . .	35,44	41,25	41,36	46,42

Municipalities and local boards.

There are ten municipalities: DHĀRWĀR TOWN, HUBLI, GADAG, NAVALGUND, YAMNŪR, NARGUND, RĀNĪBENNUR, GUDDGUDDĀPUR, BYĀDGI, and HĀVERI. Outside these, local affairs are managed by the District board and eleven *tāluka* boards. The receipts of these boards in 1903–4 were 2·8 lakhs, chiefly derived from land cess. The expenditure amounted to 3·2 lakhs, of which about 1·3 lakhs was laid out on the maintenance and construction of roads and buildings.

Police and jails.

The District Superintendent of police is aided by an Assistant Superintendent and two inspectors. There are 16 police stations in the District. The total number of police is 825: namely, 14 chief constables, 187 head constables, and 624 constables. The mounted police consist of 10 *sowārs*, under one *daffadār*. A Railway Police Superintendent in charge of the Southern Mahratta Railway line resides at Dhārwār town. There is one District jail at Dhārwār town, with accommodation for 336 prisoners. Besides this, 14 subsidiary jails can accommodate 79 males and 52 females. The daily average number of prisoners in all jails in 1904 was 400, 16 of whom were females.

Education.

Dhārwār District stands sixth as regards literacy among the 24 Districts of the Presidency, 6·7 per cent. of the population

(12·8 males and 0·5 females) being able to read and write in 1901. In 1881 there were 364 schools in the District with an attendance of 21,262 pupils. The number of pupils rose to 34,025 in 1901. In 1903-4 there were 564 educational institutions with 23,577 pupils, of whom 3,666 were girls. The 542 institutions classed as public include 527 primary, 10 secondary, and 3 high schools, besides 2 training institutions, one for males and one for females, at Dhārwār town. Of these institutions, 4 are maintained by Government, 410 are managed by the District or municipal boards, 125 are aided, and 3 unaided. The total expenditure on education was more than 2·3 lakhs, of which Rs. 43,000 was derived from fees, and Rs. 57,000 was contributed by Local funds. Of the total, 72 per cent. was devoted to primary schools.

Hospitals and dispensaries.

The District contains one hospital, eight dispensaries, and three railway medical institutions, with accommodation for 116 in-patients. The total number of patients treated in 1904 was nearly 94,000, including 1,079 in-patients, and 1,772 operations were performed. The total expenditure on the hospital and dispensaries, excluding the railway institutions, was Rs, 29,800, of which Rs. 17,900 was met from Local and municipal funds. Dhārwār town contains a lunatic asylum, with a daily average of 78 inmates.

Vaccination.

The number of persons successfully vaccinated in 1903-4 was 24,052, representing a proportion of 21·6 per 1,000 of population, which is much below the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. xxii (1884); J. F. Fleet, *The Dynasties of the Kanarese Districts* (1896); Papers issued by the Bombay Government regarding the Revision of Settlement, Nos. CXLV, CLV, CLVI, CLIX, CLX, CLXI, and CLXII.]

Navalgund Tāluka.—North-western *tāluka* of Dhārwār District, Bombay, lying between 15° 21′ and 15° 53′ N. and 75° 5′ and 75° 33′ E., with an area of 565 square miles. It includes the petty subdivision (*petha*) of Nargund. There are three towns, ANNIGERI (population, 7,172), NARGUND (10,416), and NAVALGUND (7,862), the head-quarters; and 83 villages. The population in 1901 was 94,709, compared with 105,876 in 1891. Navalgund is the most thinly populated *tāluka* in the District, with a density of 168 persons per square mile. The demand for land revenue in 1903-4 was 3·9 lakhs; and for cesses Rs. 28,000. The *tāluka* forms an expanse of black soil, with three hills, namely, Great Nargund, Chik or Little

Nargund, and Navalgund, running from north-west to south-east. The supply of drinking-water is chiefly from rivers. The rainfall, which averages 24 inches in the year, is uncertain.

Ron Tāluka.—North-eastern *tāluka* of Dhārwār District, Bombay, lying between 15° 30′ and 15° 50′ N. and 75° 29′ and 76° 2′ E., with an area of 432 square miles. There are two towns, RON (population, 7,298), the head-quarters, and GAJENDRAGARH (8,853); and 84 villages, including NAREGAL (8,327) and SAVDI (5,202). The population in 1901 was 103,298, compared with 92,370 in 1891. The density, 239 persons per square mile, is slightly below the District average. The demand for land revenue in 1903–4 was 1·8 lakhs, and for cesses Rs. 14,000. Ron *tāluka* is a stretch of rich black soil, without a hill or upland. The people are skilful, hard-working husbandmen, and well-to-do. The water-supply is poor, and the annual rainfall averages only about 23 inches.

Dhārwār Tāluka.—North-western *tāluka* of Dhārwār District, Bombay, situated between 15° 19′ and 15° 41′ N. and 74° 43′ and 75° 13′ E., with an area of 430 square miles. It contains two towns, DHĀRWĀR (population, 31,279), the head-quarters, and HEBLI (5,294); and 129 villages. The population in 1901 was 126,797, compared with 127,094 in 1891. The density, 295 persons per square mile, exceeds the average for the District. The demand for land revenue in 1903–4 was 2·84 lakhs, and for cesses Rs. 22,000. The *tāluka* is hilly, the cultivation lying in patches in the valleys, except in the north and east where the rugged country yields place to a black-soil plain, broken by an occasional peak or group of hillocks. Although the annual rainfall averages 34 inches, water is scanty and usually brackish.

Hubli Tāluka.—Central *tāluka* of Dhārwār District, Bombay, lying between 15° 10′ and 15° 30′ N. and 75° 2′ and 75° 27′ E., with an area of 311 square miles. It contains one town, HUBLI (population, 60,214), the head-quarters; and 74 villages. The population in 1901 was 124,258, compared with 118,182 in 1891. Hubli is the most thickly populated *tāluka* in the District, with a density of 399 persons per square mile. The demand for land revenue in 1903–4 was 2·6 lakhs, and for cesses Rs. 18,000. The watershed of Southern India runs through the *tāluka*. Two small ranges of hills, Doddagudd and Buradsinghi, break the level of the plain. Between Behatti and Hebsur lies a small tract which is said to receive a good rainfall not oftener than once in four years, and yet to repay the husbandman. The annual rainfall averages 29 inches.

Gadag Tāluka.—Eastern *tāluka* of Dhārwār District, Bombay, lying between 15° 2′ and 15° 38′ N. and 75° 26′ and 75° 57′ E., with an area of 699 square miles. It includes the petty subdivision (*petha*) of Mundargi. There are two towns, GADAG (population, 30,652), the head-quarters, and MULGUND (7,523); and 98 villages, including KURTKOTI (5,247). The population in 1901 was 137,573, compared with 124,713 in 1891. The density, 197 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was 2·73 lakhs, and for cesses Rs. 20,000. In the south the village sites are small and lie close together, but they become more scattered in other parts. The chief hills are the Kappat range. They are of strongly iron-charged clay slate, which in the west shows traces of gold. The climate is temperate and healthy. The Dambal tanks, made at a cost of Rs. 64,000, irrigate 40 square miles in the District. The annual rainfall averages about 25 inches.

Kalghatgi.—Western *tāluka* of Dhārwār District, Bombay, lying between 15° 2′ and 15° 22′ N. and 74° 56′ and 75° 8′ E., with an area of 275 square miles. There are 99 villages, but no town; the head-quarters are at Kalghatgi. The population in 1901 was 53,657, compared with 55,258 in 1891. The density, 195 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was 1·3 lakhs, and for cesses Rs. 9,000. Most of the country is broken by wooded hills. The east and south are open and rolling, with bushy uplands. The north and west are wilder. The supply of water is on the whole plentiful. The rainfall in the west is heavier than in the rest of the *tāluka*, the average at Kalghatgi village being 36 inches a year.

Bankāpur Tāluka.—Western *tāluka* of Dhārwār District, Bombay, lying between 14° 51′ and 15° 10′ N. and 75° 4′ and 75° 28′ E., with an area of 344 square miles. There is one town, BANKĀPUR (population, 6,360), and 144 villages, including SHIGGAON (5,232), the head-quarters. The population in 1901 was 90,361, compared with 85,602 in 1891. The density, 263 persons per square mile, is above the District average. The demand for land revenue in 1903-4 was 2·09 lakhs, and for cesses Rs. 16,000. In the west the soil is chiefly red, in the south and north chiefly black, and in the east a mixed black and red. The climate is healthy.

Karajgi.—Eastern *tāluka* of Dhārwār District, Bombay, lying between 14° 44′ and 15° 5′ N. and 75° 17′ and 75° 44′ E., with an area of 441 square miles. It contains one town

HĀVERI (population, 7,974), the head-quarters; and 127 villages. The population in 1901 was 104,342, compared with 90,206 in 1891. The density, 237 persons per square mile, is slightly below the District average. The demand for land revenue in 1903-4 was 2·09 lakhs, and for cesses Rs. 16,000. Except in the south-west, where it is broken by hills, the country is flat. It is crossed from east to west by the Varadā, a tributary of the Tungabhadra. In the north and east the soil is black and in the south and west mostly red, with an occasional plot of black. The plain of Karajgi is broken at Deogiri, Kanvali, and Kabur by short ranges of hills. The annual rainfall averages 30 inches.

Hāngal Tāluka.—South-eastern *tāluka* of Dhārwār District, Bombay, lying between 14° 35′ and 14° 55′ N. and 75° 1′ and 75° 20′ E., with an area of 300 square miles. It contains one town, HĀNGAL (population, 6,853), the head-quarters; and 156 villages. The population in 1901 was 77,784, compared with 74,506 in 1891. The density, 259 persons per square mile, slightly exceeds the District average. The demand for land revenue in 1903-4 was nearly 2 lakhs, and for cesses Rs. 15,000. The country is covered with small hills overgrown with vegetation. The climate is temperate and healthy. There are numerous irrigation tanks.

Koḍ.—Southernmost *tāluka* of Dhārwār District, Bombay, lying between 14° 17′ and 14° 43′ N. and 75° 10′ and 75° 38′ E., with an area of 400 square miles. There are 176 villages, but no town; the head-quarters are at Hirekerur. The population in 1901 was 96,245, compared with 84,427 in 1891. The density, 241 persons per square mile, is almost equal to the District average. The demand for land revenue in 1903-4 was 2·03 lakhs, and for cesses Rs. 15,000. The *tāluka* is dotted with small hills and ponds. A considerable portion is well watered, and covered with sugar-cane fields and areca palms. The soil is chiefly red, black soil occurring in a few villages in the east. The north and west are studded with small hills and knolls, and the south is also hilly. The Tungabhadra river touches a few villages in the south-east; the Kumadvati, rising in Mysore, flows east across the *tāluka*. Kod is cool and healthy in the hot months, but very malarious during the cold season. The Madag tank, fed by the waters of the Kumadvati, once a work of first-class importance but now fallen into disrepair, irrigates 922 acres.

Rānībennur Tāluka.—South-easternmost *tāluka* of Dhārwār District, Bombay, lying between 14° 24′ and 14° 48′ N.

and 75° 27′ and 75° 49′ E., with an area of 405 square miles. The population in 1901 was 104,274, compared with 92,978 in 1891. The density, 257 persons per square mile, slightly exceeds the District average. There are three towns, RĀNĪBENNUR (population, 14,851), the head-quarters, BYĀDGI (6,659), and TUMINKATTI (6,341); and 116 villages. The demand for land revenue in 1903-4 was 1·78 lakhs, and for cesses Rs. 13,000. The country is generally flat, with a low range on the north and a group of hills in the east, and is well supplied with water. The prevailing soil is black in the low-lying parts, and red on the hills and uplands. Important protective irrigation works have been constructed at Asundi and Medleri. The capital outlay to the end of 1903-4 on these tanks was 1·6 lakhs, and they supplied 341 acres in that year.

Annigeri.—Town in the Navalgund *tāluka* of Dhārwār District, Bombay, situated in 15° 25′ N. and 75° 26′ E., on the main road from Dhārwār to Bellary via Gadag, and on the Southern Mahratta Railway. Population (1901), 7,172. Annigeri has a considerable trade in grain and cotton, and a large weekly market. A remarkable temple is that of Amriteshwar. It is of considerable size, supported by seventy-six pillars, and is ascribed to Jakhanāchārya. Six inscriptions in the temple are dated between 1157 and 1208. The Kalachuri chief Bijjala, who overthrew the Western Chālukyas, made Annigeri his capital in 1161. At the beginning of the British rule it was included in the *jāgīr* of the Nipāni chief, and lapsed to Government in 1839. The town contains four schools, one of which is for girls.

Bankāpur Town.—Town in the *tāluka* of the same name in Dhārwār District, Bombay, situated in 14° 55′ N. and 75° 16′ E. Population (1901), 6,360. It has a ruined fort and two temples. A weekly market is held on Tuesdays, when coarse cloth, blankets, oil, and metal vessels are sold. The earliest mention of Bankāpur is in a Kolhāpur Jain manuscript dated 898, where 'the famous city of Bankāpur, the greatest among cities,' is described as having been called after himself by the Chellaketan chief Bankeyārasa, the Dhārwār underlord of the Rāshtrakūta king Amoghavarsha (851-69). In 1071 Udayāditya of the Gangā family was reigning at this city. In 1406 it was besieged by the Bahmani Sultān, Fīroz Shāh, an ancestor of the Nawāb of Savanūr. In 1776 it fell to Haidar Alī. From Marāthā records of 1790 Bankāpur seems to have been the head-quarters of a *sarkār* of sixteen *parganas*. In 1802 it was ceded to the British by the Peshwā under the

Treaty of Bassein. It contains a fine Jain temple of Rangaswāmi, with a number of inscriptions. There are four schools, of which two are for girls.

Byādgi.—Town in the Rānībennur *tāluka* of Dhārwār District, Bombay, situated in 14° 41′ N. and 75° 30′ E., about 10 miles north-west of Rānībennur town, on the Southern Mahratta Railway. Population (1901), 6,659. The municipality, established in 1879, had an average income during the decade ending 1901 of Rs. 10,000. In 1903–4 the income was Rs. 11,600. A weekly market, one of the largest in the District, is held on Saturdays, when rice, molasses, groceries, and chillies are sold. The Rāmeshwar temple has two inscriptions, one dated 1092 and the other 1620. The town contains three schools, of which one is for girls.

Dhārwār Town.—Head-quarters of Dhārwār District and *tāluka*, Bombay, situated in 15° 27′ N. and 75° 1′ E., on the Southern Mahratta Railway. Population (1901), 31,279, including suburbs. Hindus number 22,770, Muhammadans 7,427, and Christians 628. The fort stands on undulating ground. Towards the west low hills run down to the plains, forming the last spurs of the Western Ghāts. The fort and the town are almost hidden from view on the east by trees and rising ground. The approach from the south is striking. The highest point is occupied by the Collector's office, from which a commanding view of the town, suburbs, and surrounding country is obtained. Below the office and adjacent to it is the temple of Ulvi-Basappa, and beyond, the hill of Mailarling, formerly considered the key to the fort of Dhārwār. Outside the town extensive plains of black soil stretch across to the hills of Navalgund and Nargund on the east, and on the north-east to the famous hill of Yellamma (*see* SAUNDATTI-YELLAMMA) and Parasgad. Towards the south-east the hill of Mulgund appears at a distance of about 36 miles.

There is no authentic evidence of the date when the fort was founded. A *purāna* or legendary chronicle concerning the origin of the neighbouring temple of Someshwar makes no mention of Dhārwār. According to local tradition, the fort was founded in 1403 by one Dhār Rao, an officer in the forest department under the Hindu king of Vijayanagar. The first certain notice of Dhārwār is in 1573, when the Bijāpur Sultān, Alī Adil Shāh, marched against it. At that date it was held by an officer of the king of Vijayanagar, who had assumed practical independence. The fort fell after a siege of six months, and the surrounding country was annexed to Bijāpur.

In 1685 the fort was captured by Aurangzeb, and in 1753 it fell into the hands of the Marāthās. In 1778 Dhārwār was taken from the Marāthās by Haidar Alī, the Muhammadan usurper of Mysore, and in 1791 it was retaken by a British force auxiliary to the Marāthās under Parasu Rāma Bhau. On the final overthrow of the Peshwā in 1818, Dhārwār, with the other possessions of that potentate, fell to the British. The fort is described as being well planned and naturally strong. Previous to 1857 it was kept in repair; since then it has been breached, and, like all other forts in the District, is now fast falling into ruins. In 1837 Dhārwār was the scene of violent feuds between the Brāhmans and the Lingāyats, compelling the interference of Government.

The town, which is very straggling, is made up of seven quarters or *mahāls*. There are a few good houses with upper storeys. A market is held every Tuesday. The only monument of historical interest is that erected in memory of the Collector, Mr. St. John Thackeray, and the Sub-Collector, Mr. J. C. Munro, who were killed at the taking of Kittūr in 1824. About a mile and a half south of Dhārwār is a hill called the Mailarling; on its summit stands a small square stone temple, built after the Jain fashion, and facing the east. The columns and beams are of massive stone, and the roof of the same material is handsomely carved. On one of the columns is an inscription in Persian, recording that the temple was converted into a mosque in 1680 by the deputy of the Sultān of Bijāpur. The only prosperous classes of the population are the Brāhmans and Lingāyats. The Lingāyats are, as a rule, traders, who almost monopolize the export of cotton, timber, and grain. Some of the Musalmāns are also wealthy merchants. A few Pārsīs and Mārwāris, who have recently settled in the town, deal chiefly in European goods. The principal articles of export are cotton and rice; the imports comprise English piece-goods, chillies, coco-nuts, molasses, dates, betel-nuts, groceries, indigo, lead, zinc, and wrought and unwrought copper and brass. There are no manufacturing industries of any importance; but in the jail carpets, table-linen, cloths, and cane articles, all of superior quality, are made by the prisoners. The municipality was established in 1856. During the decade ending 1901 the income averaged Rs. 46,000. In 1903-4 the income was Rs. 56,000, derived chiefly from octroi (Rs. 17,000), tax on houses and lands (Rs. 13,000), and market-fees. The water-supply is drawn from two reservoirs. There are also several wells in the town;

but with one or two exceptions they are not used for drinking purposes, the water being brackish. The native quarter was formerly unhealthy; but since the introduction of the Municipal Act, some attention has been paid to drainage and sanitary requirements. Dhārwār contains 22 schools, including 3 high schools, one supported by Government, one belonging to the Basel Mission, and one unaided. A training college for masters and a school for mistresses have 136 and 14 pupils respectively. The Government high school has a music class attached to it, and the male training college contains a workshop. There is also a school for European and Eurasian girls and another for boys. The total number of girls' schools is 8, with an attendance of 611 pupils. Besides the chief revenue and judicial offices, the town contains the head office of the Southern Mahratta Railway Company, a Subordinate Judge's court, a civil hospital, a railway dispensary, and a lunatic asylum with 78 inmates.

Gadag Town.—Head-quarters of the *tāluka* of the same name in Dhārwār District, Bombay, situated in 15° 25′ N. and 75° 38′ E., on the Southern Mahratta Railway. Population (1901), 30,652. Hindus number 23,297, Muhammadans 6,213, and Christians 933. Gadag with Bettigeri was constituted a municipality in 1859. During the decade ending 1901 the income averaged Rs. 33,000. In 1903–4 the income was Rs. 47,000. Gadag is a flourishing town with a considerable trade in raw cotton and cotton and silk fabrics, and contains a cotton-spinning mill with 14,000 spindles and 9 cotton-ginning factories. The mill, owned by a private company, annually produces about 1,000,000 lb. of yarn valued at 5 lakhs, and employs an average of 444 hands daily. Gadag has the remains of some of the most richly carved temples in the District. The chief of these are dedicated to Trikuteshwar, Saraswatī, Nārāyan, Someshwar, and Rāmeshwar. Inscriptions in some of these describe Gadag under the name of Kratuka; and it appears from them that the town was at different times under the Western Chālukya (973–1170), Kalāchuri (1161–83), Hoysala Ballāl (1047–1310), Deogiri Yādava (1170–1310), and Vijayanagar kings (1336–1565). About 1673 Gadag was included with Nusratābād or Dhārwār as one of the chief districts of the Bankāpur *sarkār*. In 1818 General Munro invested Gadag. The town contains a Subordinate Judge's court, two dispensaries (of which one belongs to the railway company), a school for European and Eurasian girls, a municipal middle school, and eight other schools.

Gajendragarh.—Town in the Ron *tāluka* of Dhārwār District, Bombay, situated in 15° 44′ N. and 75° 58′ E., 51 miles south-east of Kalādgi. Population (1901), 8,853. The town contains five schools, of which one is for girls.

Guddguddāpur (or Devargud).—Town and place of pilgrimage in the Rānībennur *tāluka* of Dhārwār District, Bombay, situated in 14° 40′ N. and 75° 35′ E. Population (1901), 947. The fair held in October in honour of Mallāri or Siva is attended by between 5,000 and 10,000 pilgrims. There is a temple of Mallāri, who is reputed to have become incarnate as Bhairav and thus to have slain the demon Malla. His attendants, known as Vāggyas, are alleged to be descended from dogs incarnate as men. They receive the pilgrims dressed in tiger- or bear-skins, perform numerous antics, and receive gifts of a few pies from each pilgrim. In 1878 Guddguddāpur was constituted a temporary municipality. The income, derived from a pilgrim and a shop tax, averaged Rs. 662 during the decade ending 1901. In 1903-4 the income was Rs. 174.

Hāngal Town.—Head-quarters of the *tāluka* of the same name in Dhārwār District, Bombay, situated in 14° 46′ N. and 75° 8′ E., about 50 miles south of Dhārwār town. Population (1901), 6,853. The most interesting temple is dedicated to Tārakeshwar. About 600 yards west of modern Hāngal is a remarkable conical mound known as Kuntina Dibba, or 'Kunti's hillock.' Hāngal, called Virātkot, Virātnagari, and Pānungal in inscriptions, is locally believed to be a place where the Pāndavas lived during part of their exile from Delhi. Until conquered by the Hoysala king Ballāl II about 1200, Hāngal was governed by the dynasty of the Kadambas as vassals of the Western Chālukyas. The town contains a dispensary and three schools, of which one is for girls.

Hāveri.—Head-quarters of the Karajgi *tāluka*, Dhārwār District, Bombay, situated in 14° 47′ N. and 75° 28′ E., on the Southern Mahratta Railway. Population (1901), 7,974. Hāveri has a considerable trade in cotton and other commodities, especially in cardamoms, brought from Kanara to be washed in a small lime-impregnated well. It has four temples and a monastery. Hāveri was constituted a municipality in 1879, and had an average income of Rs. 4,600 during the decade ending 1901. In 1903-4 the income was Rs. 5,100. The town contains a Subordinate Judge's court, a dispensary, a municipal middle school, and four other schools, of which one is for girls.

Hebli.—Town in the District and *tāluka* of Dhārwār, Bombay, situated in 15° 28′ N. and 75° 8′ E., 7 miles east of Dhārwār town. Population (1901), 5,294. Hebli is situated on rising ground, with an old dilapidated fort in the centre. A weekly market is held here. Hebli was granted in 1748 by Bālājī Bājī Rao Peshwā to an ancestor of the present Sardār. In 1818 Sir Thomas Munro gave the proprietor the neighbouring villages of Kurdāpur and Talva for services to the British Government. Close to the village are a temple of Shambhuling and a ruined temple of Changalovādevī. The town contains a boys' school and a girls' school.

Hubli City (*Hubbali* or *Pubbali*='old village').—Headquarters of the *tāluka* of the same name in Dhārwār District, Bombay, situated in 15° 20′ N. and 75° 9′ E., on the Southern Mahratta Railway. Hubli is the eighth city in the Presidency in size. Its population has been: (1872) 37,961, (1881) 36,677, (1891) 52,595, and (1901) 60,214, including the suburbs (301). The population in the last year comprised 39,835 Hindus, 17,516 Muhammadans, 902 Jains, and 1,809 Christians. Hubli was made a municipality in 1855. The income during the decade ending 1901 averaged a little over a lakh. In 1903–4 the income was 1·56 lakhs, chiefly derived from octroi (Rs. 62,000), water rate (Rs. 15,000), and taxes on houses and lands (Rs. 14,500). The expenditure is chiefly devoted to collection charges (Rs. 28,000), public safety (Rs. 4,700), water-supply and drainage (Rs. 14,300), conservancy (Rs. 16,800), education (Rs. 23,800), medical Rs. 7,200), and public works (Rs. 10,000). Situated on the main lines of communication with Harihar, Kārwār, and Kumta, Hubli has become the centre of the cotton trade of the Southern Marāthā country. Besides raw cotton and silk fabrics, a trade in copper vessels, grain, salt, and other commodities is conducted on a large scale. There are two cottton-mills with 34,000 spindles, employing 1,200 hands, six cotton-ginning and pressing factories, and one workshop. The mills produce annually about 3,000,000 lb. of yarn, valued at 13 lakhs. Hubli contains 37 temples, 27 monasteries, 17 mosques, a Protestant Christian church of the German Mission, and a Roman Catholic chapel. The largest and most substantial monastery is the Lingāyat Mursavirad.

Hubli centres round a plain old stone temple to Bhawānishankar, which contains a *lingam*, images of Ganpati and two or three other lesser gods, and from an old Kanarese inscription seems to belong to the eleventh century. Old

Hubli is also locally called Rāyar Hubli, that is, 'the Hubli made by the Vijayanagar kings' (1336–1565). In 1547 it was described as a place of trade in saltpetre and iron. In 1673 it is mentioned as a place of much wealth and of great trade. At this time Hubli was the seat of an English factory, which, with the rest of the town, was plundered by Annājī Dattu, one of Sivajī's generals. In 1675 it was conquered by Muhammad Saiyid Khān Tārīn, a general of Aurangzeb, who conferred upon Shāh Muhammad Khān, son of the general, who had been killed in the attack, the fort and district of Old or Rāyar Hubli and the petty division of Devar Hubli. In 1685 Sultān Muazzam took Hubli and Dhārwār. Four years later the *sardeshmukhi* of the District of Rāyar Hubli was conferred upon the Desai of Kittūr, who did not enjoy it long. In 1727 one Bassappa of Old Hubli built the town and fort of New Hubli. During the eighteenth century the Tārīn family suffered from the contests between the Marāthās and the rulers of Mysore. New Hubli seems to have fallen to the chief of Sāngli, by whom Old Hubli was held when it was taken by General Munro in 1818. In 1820 New Hubli with some other villages and districts was ceded by the chief of Sāngli in lieu of furnishing an annual contingent.

Hubli is a military station in the Poona division of the Western (Southern) Command. It contains a Subordinate Judge's court, two dispensaries, of which one belongs to the railway company, a municipal middle school, two schools for Europeans and Eurasians, and 22 other schools.

Kurtkoti.—Village in the Gadag *tāluka* of Dhārwār District, Bombay, situated in 15° 22′ N. and 75° 31′ E., 25 miles east of Hubli. Population (1901), 5,247. It contains four temples with inscriptions, dated from the eleventh to the thirteenth century, and a school.

Lakkundi.—Place of antiquarian interest in the Gadag *tāluka* of Dhārwār District, Bombay, situated in 15° 23′ N. and 75° 43′ E., 7 miles south-east of Gadag town. Population (1901), 4,454. It contains fifty temples and thirty-five inscriptions. The temples are ascribed to Jakhanāchārya. They suffered severely in the Chola invasion about 1070, but were afterwards rebuilt. The finest and most remarkable is the temple of Kāshivishveshwar. There are numerous step-wells. Of the thirty-five inscriptions, the earliest deciphered is dated A.D. 868. In 1192 the Hoysala king Ballāla II, better known as Vīra Ballāla (1192–1211), established his capital at Lakkundi, then styled Lokkigundi, and in the vicinity met

and defeated the forces of the Deogiri Yādava Bhillam, commanded by the latter's son Jaitugi. Lakkundi contains a school.

Mulgund.—Town in the Gadag *tāluka* of Dhārwār District, Bombay, situated in 15° 16′ N. and 75° 31′ E., 12 miles southwest of Gadag town. Population (1901), 7,523. Till 1848, when through failure of heirs it lapsed to the British Government, Mulgund belonged to the chief of Tāsgaon. There are five Brāhmanic and four Jain temples in the town. It contains four schools, of which one is for girls.

Mundargi.—Village in the Gadag *tāluka* of Dhārwār District, Bombay, situated in 15° 12′ N. and 75° 53′ E., at the base of a hill on which stands a ruined fort, about 24 miles south-east of Gadag town. Population (1901), 4,657. Its position on the Nizām's frontier has helped Mundargi to grow into a large market town. At the time of the Mutiny of 1857, it was under an hereditary district officer named Bhimrao Nadgir, who corresponded with the rebel chief of NARGUND and murdered a British guard. He subsequently fell at the siege of Kopal. The village contains three schools, of which one is for girls.

Naregal.—Town in the Ron *tāluka* of Dhārwār District, Bombay, situated in 15° 34′ N. and 75° 48′ E., 55 miles east of Dhārwār town. Population (1901), 8,327. Naregal is an old town, with temples and inscriptions dating from the twelfth to the thirteenth century. Weekly markets are held on Monday. The town contains a school.

Nargund.—Town in the Navalgund *tāluka* of Dhārwār District, Bombay, situated in 15° 43′ N. and 75° 24′ E., 32 miles north-east of Dhārwār town. Population (1901), 10,416. Nargund was constituted a municipality in 1871, the average income during the decade ending 1901 being Rs. 5,000. In 1903–4 the income was Rs. 7,700. Though not a manufacturing town, it is a busy entrepôt of trade, where the merchants of Dhārwār and North Kanara exchange rice, sugar, spices, and other agricultural products. Nargund was one of the earliest possessions wrested from the feeble grasp of the Muhammadan Sultāns of Bijāpur by Sivajī. It was subsequently handed over to Rāmrao Bhāve with some surrounding villages. On the conquest of the Peshwā's territory by the British, it was restored by them to Dādājī Rao, the chief then found in possession. An agreement was concluded with him, by which he was exempted from the payment of his former tribute of Rs. 3,470, from *nazarāna* or presents on occasions, and from

rendering service, on condition of loyalty to, and dependence on, the British Government. This petty principality, containing 36 towns and villages, with a population of about 25,000, was, at the time of the Mutiny in 1857, held by Bhāskar Rao, *alias* Bābā Sāhib. Affected by the disturbances in the north, the chief rose in open rebellion and murdered Mr. Manson, the Commissioner and Political Agent, Southern Marāthā Country. A British force was dispatched at once to Nargund; and, after a short but decisive engagement, the fort and town fell. The fortifications have since been dismantled, and the fort has been rendered untenable by destroying some of the chief reservoirs. Nargund contains a large temple of Shankarling and a smaller one of Dandeshwar, with an inscription dated 1147; another temple, of Venkatesh, on the hill-top in the fort, was built in 1720. An annual fair attended by 10,000 people is held in honour of Venkatesh on the full moon of Ashvin, and lasts for twelve days. The town contains six schools, of which one is for girls.

Navalgund Town.—Head-quarters of the *tāluka* of the same name in Dhārwār District, Bombay, situated in 15° 33′ N. and 75° 21′ E., 24 miles north-east of Dhārwār town. Population (1901), 7,862. The town is celebrated for the excellence of its cotton carpets, and for its superior breed of cattle, which are chiefly sold at the weekly market on Tuesdays. In 1454 it appears as the head-quarters of a *sarkār* under the Bahmani Sultān Alā-ud-dīn. In 1690, under Aurangzeb's governor of Savanūr, it was the head-quarters of a revenue division, managed by an hereditary Lingāyat officer styled the Desai of Navalgund. In 1747 it was ceded to the Peshwā. It was conquered by Tipū Sultān, and taken from him by the Marāthās, who gave the Desai's family a maintenance in land yielding Rs. 23,000 per annum. Between 1795 and 1800, in the struggles which convulsed the Marāthā State, Dhundu Pant Gokhale took Navalgund and Gadag from the hereditary Desai. In 1817 General Munro appointed Rām Rao as the military officer of Navalgund, who seized possession of more than half the district, and defeated the son of Gokhale. Hearing of this defeat, Gokhale came from Bādāmi and was himself defeated by General Munro, marching from Dhārwār. The Desai of Navalgund still enjoys some *inām* lands. In 1838 adoption was allowed, on condition that the Desai abolished all duties on trade. A municipality was constituted in 1870, of which the income during the decade ending 1901 averaged Rs. 7,200. In 1903-4 the income was Rs. 6,700

The town contains a dispensary, and three schools, of which one is for girls.

Rānībennur Town.—Head-quarters of the *tāluka* of the same name in Dhārwār District, Bombay, situated in 14° 37′ N. and 75° 38′ E., on the Southern Mahratta Railway, and on the road from Poona to Madras. Population (1901), 14,851. A municipality was established in 1858, the average income during the decade ending 1901 being Rs. 7,900. In 1903-4 the income was Rs. 9,400. This is a thriving town, noted for the excellence of its silken and cotton fabrics, and having a considerable trade in raw cotton. In 1800, while in pursuit of the Marāthā freebooter Dhundia Wāgh, Colonel Wellesley (afterwards the Duke of Wellington), being fired on by the garrison, attacked and captured the town. In 1818 a party of General Munro's force occupied Rānībennur. In February and August the local shepherds visit Chol Maradi, or 'scorpion hill,' 2 miles south of the town, to worship Bīr Deo, an incarnation of Siva. While the god is present on the hill the scorpions, it is said, do not sting. The town contains a dispensary and seven schools, including a municipal middle school.

Rattihalli.—Village in the Kod *tāluka* of Dhārwār District, Bombay, situated in 14° 25′ N. and 75° 31′ E., about 10 miles south-east of Kod. Population (1901), 3,328. Till 1864 Rattihalli was the head-quarters of the *tāluka*. In 1764, in the war between Haidar Alī and the Marāthās, Rattihalli was the scene of a signal rout of Haidar's army. It contains a temple in Jakhanāchārya style, built of sculptured slabs, with three domes supported on thirty-six pillars. There are seven inscriptions, varying in date from 1174 to 1550. There is also a ruined fort. The village contains two schools.

Ron Town.—Head-quarters of the *tāluka* of the same name in Dhārwār District, Bombay, situated in 15° 42′ N. and 75° 44′ E., 55 miles north-east of Dhārwār town. Population (1901), 7,298. Ron has seven black stone temples, in one of which is an inscription dated 1180. The town contains two schools, one of which is for girls.

Savdi.—Village in the Ron *tāluka* of Dhārwār District, Bombay, situated in 15° 39′ N. and 75° 45′ E., about 5 miles south-west of Ron town. Population (1901), 5,202. It contains temples of Brahmadeo and Nārāyandeo, each with an inscription; and two schools, of which one is for girls.

Shiggaon.—Head-quarters of the Bankāpur *tāluka*, Dhārwār District, Bombay, situated in 14° 59′ N. and 75° 13′ E., on the Poona-Harihar road. Population (1901), 5,232. Shig-

gaon contains temples of Kalmeshwar and Basappa and ten inscriptions, one in the temple of Basappa being dated 1121. There are three schools, of which one is for girls.

Tuminkatti.—Village in the Rānībennur *tāluka* of Dhārwār District, Bombay, situated on the Tungabhadra river, on the Dhārwār-Mysore frontier, about 15 miles south of Rānībennur town. Population (1901), 6,341. It contains two schools.

Yamnūr.—Town in the Navalgund *tāluka* of Dhārwār District, Bombay, situated in 15° 32′ N. and 75° 22′ E., 3 miles south-west of Navalgund town. Population (1901), 822. It is a place of pilgrimage, with an annual fair attended by 20,000 to 100,000 people. The fair is held in honour of Rājā Bāghsawār, a saint of Gulburga in the Nizām's Dominions, in March–April, and lasts four days. The saint derives his name of 'tiger rider' from his having ridden on a tiger to the encounter with another holy man who rode to meet him on a wolf. The story recalls the legend of Jnāneshwar and Chāngdeo of Alandi in Poona District. Yamnūr has been a temporary municipality since 1881, maintained by a pilgrim and shop tax, with an average income during the decade ending 1901 of Rs. 4,200. In 1903–4 the income was Rs. 3,600. The town contains a school.

Boundaries, configuration, and hill and river systems.

Kanara, North.—District in the Southern Division of Bombay, lying between 13° 53′ and 15° 32′ N. and 74° 4′ and 75° 5′ E., with an area of 3,945 square miles. It is bounded on the north by Belgaum District; on the east by Dhārwār District and the State of Mysore; on the south by South Kanara in Madras; on the west for about 76 miles by the Arabian Sea; and on the north-west by the territory of Goa. The District is not to be confounded with the District of South Kanara in Madras. North Kanara is the most southerly of the coast Districts of the Bombay Presidency.

The Western Ghāts, varying in height from 2,500 to 3,000 feet, run through the District from north to south, dividing it into two parts: namely, the uplands or Bālāghāt (area, 2,639 square miles), and the lowlands or Payanghāt (area, 1,306 square miles). The coast-line is broken only by the Kārwār headland in the north, and by the estuaries of four rivers and the mouths of many smaller streams, through which the salt water finds an entrance into numerous lagoons winding several miles inland. The shore, though generally sandy, is in some parts rocky. Fringing its margin, and behind the banks of the brushwood-bordered lagoons, rise groves of coco-nut palms; and inland from this line of palms stretches a narrow

strip of level rice land. The whole breadth of the lowlands, never more than 15 miles, is in some places not more than 5 miles. From this narrow belt rise a few smooth flat-topped hills, from 200 to 300 feet high; and at places it is crossed by lofty, rugged, densely-wooded spurs, which, starting from the main range of the Western Ghāts, maintain almost to the coast a height of not less than 1,000 feet. Among these hills lie well-tilled valleys of garden and rice land. The plateau of the Bālāghāt is irregular, varying from 1,500 to 2,000 feet in height. In some parts the country rises into well-wooded knolls, in others it is studded by small, isolated, steep hills. Except on the bank of streams and in the more open glades, the whole is one broad waste of woodland and forest. The open spaces are dotted over with hamlets or parcelled out into rice clearings.

Both on the coast, where the green curtain of the forest forms a pleasing background to the long stretches of white sand, on which the rollers break beneath tall palms or dense patches of casuarina, and above the Ghāts in the vistas of giant hills covered with evergreen jungle, the scenery is of rare beauty. Owing to the absence of railway communication the greater part of the District is seldom visited, except by officials or sportsmen; but the traveller who strays into these unfrequented paths will find surroundings that compare favourably in picturesqueness with any of nature's handiwork.

Stretching across the watershed of the Western Ghāts, North Kanara contains two sets of rivers—one flowing west into the Arabian Sea, the other east towards the Bay of Bengal. Of the eastern streams, the Varadā, a tributary of the Tungabhadra, alone calls for mention. Of those that flow westwards, four are of some importance—the Kālīnadī in the north, the Gangāvali and Tadri in the centre, and the Sharāvatī in the south. The last of these, plunging over a cliff 825 feet in height, about 35 miles east of Honāvar, forms the famous Gersoppa Falls. Along the coast the quality of the water is good, and the supply throughout the year abundant.

Geology.

The prevailing rocks are granite and trap, the former largely predominating. At the base of the granite hills a laterite formation is common. Along the coast from Kārwār to Honāvar the surface rock is almost entirely hard laterite, a stone admirably adapted for building purposes.

Botany.

The humid climate and the high and equable temperature of North Kanara account for the predominance of heavy forest and the moisture-loving types of tropical vegetation. Teak prevails in loose lighter-coloured soils. Bamboos of

several valuable kinds grow over the whole of the District. The chief liquor-yielding tree is the coco-nut, which is luxuriant in Kārwār, Kūmta, Ankola, and Honāvar. Liquor is also manufactured from the *baini* (*Caryota urens*), which grows profusely in the Ghāt forests. A detailed list of important trees, shrubs, and common herbs is given in Sir James Campbell's *Bombay Presidency Gazetteer*, vol. xv, part i.

Fauna.

Kanara is almost the only part of the Bombay Presidency abounding in wild animals. Within the last thirty years elephants have been shot in the District, but they are now extinct. Tigers are numerous, though they have decreased considerably in recent years. Leopards are found in large numbers, and occasionally the black variety. In the western portion of the Bālāghāt division, bison are common. Black bear, *sāmbar*, ribbed-face and mouse deer are frequently met with; and at times the game are much harried by packs of wild dogs who pursue the deer relentlessly till they succumb from exhaustion. In the smaller forests *chītal* (*Cervus axis*) are not uncommon. The absence of legal restriction on the number of deer shot has, however, led to such a reduction in their numbers that rules are now being brought into force to save them from extinction. Twenty years ago a herd of eighty *chītal* was not unknown; it would be difficult nowadays to meet with eight together. Among game-birds are the peafowl, jungle-fowl, spur-fowl, partridge, snipe, quail, duck, widgeon, teal, the green and the imperial pigeon. Red squirrels are frequently seen. Snakes are numerous, including the hamadryad or king cobra, and the python.

Climate, temperature, and rainfall.

The climate of different parts of Kanara varies greatly in salubrity. The coast portion, though moist, is healthy; but the forest tracts, especially the upland forests, are always malarious and at intervals are visited by especially fatal outbreaks. The most unhealthy time in the forests is the first two months of the rains and the four cold-season months. The valleys of the Kālīnadī and of its feeders are tracts where fever has a specially bad name. In December, January, and February the uplands at night and early morning are often wrapped in mist. From May 20 the south-west wind freshens and blows all day, and throughout the hot season the greater portion of the District is rendered agreeable by the prevalence of cool breezes. The temperature falls to 59° in November and rises to 91° in May. In March and April severe thunderstorms serve to cool the atmosphere. The highest annual rainfall is in Bhatkal, 156 inches, while Mundgod records only 46. Of the two divi-

sions of the District, the lowland or coast tract has a heavier rainfall than the upland. The annual rainfall at Kārwār averages 119 inches.

In the low-lying lands near the coast heavy rainfall and a stormy sea sometimes cause floods which damage the crops. In 1831 and again in 1848, owing to the tempestuous weather, the Honāvar coast lands were flooded with salt water and the crops destroyed.

In the third century B.C. Asoka sent missionaries to Banavāsi in Kanara. From numerous inscriptions the country appears to have been controlled successively by the Kadambas of Banavāsi, the Rattas, the Western Chālukyas, and the Yādavas. It was for long a stronghold of the Jain religion. In the sixteenth century, when the Portuguese established themselves upon the coast, Kanara was subject to the Vijayanagar kings. It is said to have been extremely rich and prosperous, and for a long period withstood the efforts of the Muhammadan Sultāns of the Deccan to extend their conquests to the south. Eventually, after the crushing defeat at Tālikotā (1565) and the sack of the capital city of Vijayanagar, the local chieftains of Kanara assumed independence. The Musalmāns then attacked the Portuguese settlements on the coast, but were unable to subdue them. The power of Bijāpur, however, was generally established over Kanara, and continued until the Marāthās obtained an ascendancy about 1675; but with the advance of Aurangzeb the country passed under the Mughals after the fall of Bijāpur in 1686, and the chiefs of Sonda and Bednur tendered their submission and tributes. Some time subsequent to 1700 the Marāthās again held Kanara. In 1763 Haidar Alī captured Bednur and obtained an immense booty. Sonda and the sea-coast were also subdued by him, and this brought Haidar into collision with the Marāthās; but he was able to maintain his conquests, and even to extend them as far north as the Kistna. War breaking out with the British, Tipū lost Honāvar temporarily in 1783. After the death of Tipū at Seringapatam, Sonda was annexed by the British in 1799. It included the Kanara country above the Ghāts, which had been so desolated by war and pillage that there was little to govern except trees and wild beasts. This, with the coast tract taken from Haidar, was attached to the Madras Presidency in 1799, and placed in charge of Munro. It continued to form part of Madras until 1861. In that year, owing to its relations with Bombay and to the fact that the forests supplied the Bombay dockyard with timber for ship-

History.

building, North Kanara was transferred to the Presidency of Bombay.

Archaeology. The chief buildings of interest in the District are the Jain temples of Banavāsi, Gersoppa, and Bhatkal. The temple at Banavāsi, which is attributed to the legendary Jakhanāchārya, is of considerable dimensions. It is ornamented with sculptured figures and designs, and has a short Dravidian spire. A loose slab in the courtyard bears an inscription of the second century A.D. At Nagarbastikere, near the modern Gersoppa, several Jain temples mark the site of the old town. They are much damaged by time, but the images representing the twenty-third and twenty-fourth Tīrthankars are still intact. They are finely modelled in black basalt. At Bhatkal fourteen Jain *bastīs* are still preserved, dating from the reign of Channabhaira Devī in the fifteenth century. At the same place are three stone tombs of European merchants who were buried in the year 1637. The numerous Hindu temples at Gokarn are ascribed to the fifteenth century. That of Mahābaleshwar is the most imposing. Many Kanarese inscriptions have been found at Bhatkal, Gersoppa, and Banavāsi. At Ulvi in Supa there are a few Lingāyat caves and the well of the Lingāyat saint Basava.

The people. The Census of 1872 showed a total population of 398,498, and in the next nine years the population increased to 421,932. By 1891 it had further increased to 446,453. The Census of 1901 recorded a population of 454,490, or 115 persons per square mile, residing in 8 towns and 1,281 villages. The *tāluka* distribution was:—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Haliyāl	1,057	1	105	35,122	53	+13	1,498
,, Supa *petha*		1	132	21,008		−35	959
Kārwār	281	1	54	58,460	208	+10	6,254
Yellāpur	760	...	119	22,814	52	− 2	1,590
,, Mundgod *petha*		...	77	16,739		+ 0.06	845
Ankola	375	...	90	39,665	106	+ 7	2,357
Sirsi	490	1	244	53,232	109	− 1	6,341
Kumta	224	2	111	66,040	295	+ 5	7,700
Siddāpur	332	...	197	41,342	125	− 3	3,428
Honāvar	426	1	93	62,402	235	+ 5	5,227
,, Bhatkal *petha*		1	59	37,666		+10	1,877
District total	3,945	8	1,281	454,490	115	+ 2	38,076

The chief towns are the municipalities of KĀRWĀR, the head-quarters of the District, KUMTA, BHATKAL, HONĀVAR, and SIRSI. Owing to the large areas of forest the country above the Ghāts is very sparsely populated, and in parts the population is decreasing. Much of the labour required to cultivate the upland tracts is therefore drawn from outside, the chief sources being Goa, Sāvantvādi State, and the Coondapoor *tāluk* of South Kanara. The language of the District is Kanarese, which is spoken by 57 per cent. of the total population. On the coast north of Gokarn and in the Supa *petha*, Konkanī replaces Kanarese as the common tongue.

Among the Brāhmans of Kanara (72,000) the most important are the Haviks (41,000), who are chiefly engaged in cultivation, being the owners of the areca-nut gardens of Sirsi and Siddāpur *tālukas*. They are reputed to have come originally from Southern India, and to have intermarried with the local cultivating caste of Gaudas. The second Brāhman caste of importance is the Gaud Sāraswat (25,000), also known as Shenvi, with the two kindred sub-castes of Bardeskar and Kudaldeskar. The Gaud Sāraswats, who are very fair, claim a northern origin, and certainly came from Goa in the early part of the sixteenth century. They commonly eat fish, on which account other Brāhmans usually deny them the full status of their caste. Closely allied to the Gaud Sāraswats, and probably in former times one caste with them, are the Sāraswats (2,000), also known as Kushasthali or Shenvipaiki, many of whom have lately come from South Kanara. Between Sāraswats and Gaud Sāraswats there is chronic enmity. The establishments of the Government offices in the District are largely recruited from the former.

Castes and occupations.

Apart from the Brāhman castes, the special interest of the North Kanara population centres in the primitive classes, such as the Halvakki Vakkals (4,000), Gamvakkals (12,000), Halepaiks (52,000), Mukris (5,000), Kumārpaiks (9,000), and Harakantras (6,000), who have much in common with the population of Malabar and South Kanara, and but little affinity with the rest of the Bombay Presidency. Among these primitive people there exists to the present day an organization by *bālis* or exogamous divisions strongly suggestive of totems. Thus, in the caste of a *bāli* named after the *sāmbar* deer, the members may not harm the animal, and do not intermarry. Descent is traced through females. With the gradual Brāhmanizing of these castes, such as the recent promotion of the Kumārpaiks to Kshattriya rank, it is to be expected that this

organization by *bālis* may in time disappear. It has survived long enough, however, to throw valuable light on the nature and origin of the Marāthā *devaks* in the Deccan. The Marāthās in North Kanara number 48,000, and are all cultivators, apparently a relic of the former Marāthā dominion. Locally, they are collectively described as *Arer* or Aryans. It is to be noted that the Gangāvali river is popularly considered the extreme southern limit of the Aryan race and languages in India. South of this river the dark complexion, coarse features, Dravidian speech, and primitive customs of the people seem to lend much support to the popular view. Muhammadans (29,000) are distributed as follows: Pathāns, 3,000; Sayids, 2,000; Shaikhs, 19,000. Besides the regular Muhammadan population (descendants of local converts to Islām), generally in poor circumstances, employed chiefly in agriculture and by Government as messengers and police, there are, in Kanara, two special bodies of foreign Muhammadan settlers. Of these, the more important and well-to-do are the Navāyats or seamen, representatives of the colonies of Arab merchants, of whom a remnant still exists along the whole coast-line of the Bombay Presidency, from Gogha southwards. The other foreign Musalmān community is the Sīdīs, descendants of African slaves formerly owned by the Portuguese. Although they have intermarried for several generations with the low-caste population of the District, the Sīdīs have not lost their original peculiarities. They still possess the woolly hair and black skin of the pure negro. Some of them have been converted to Christianity, and some have become absorbed in the lower Hindu castes. They are for the most part very poor, and, settled in remote forests, live on the produce of little patches of rude cultivation.

Christian missions.

The Christians in the District, who are almost all Roman Catholics, belong to two classes, the first of which consists of a few families from Goa, of Portuguese extraction, though much mixed by intermarriage with the natives of the country; the second are descendants of local converts to Christianity. Christians of the higher class are clerks, the rest principally artisans and labourers. The total number of native Christians in 1901 was 16,126, of whom 15,116 were Roman Catholics. The chief centres of Roman Catholic Christians are Honāvar, Kumta, and Kārwār. During their time of power and friendship with the Vijayanagar kings (1510–70), the Portuguese were probably allowed to make converts. But, as far as the record of treaties remains, it was during the early part of the eighteenth century, after the Mughals had withdrawn and when

the Sonda chief in the north and the Bednur chiefs in the south were their close allies, that the Portuguese were most successful in spreading Christianity along the Kanara coast. When in 1784 Tipū succeeded in driving the British garrisons out of Kanara, he determined, on both political and religious grounds, to convert the native Christians to Islām. After taking a secret census he dispatched troops who arrested 60,000, or, according to other accounts, 30,000 out of the 80,000 Christians found. The churches were dismantled and every trace of the Christian religion disappeared. Except infirm women and children, the prisoners were marched under a strong military escort to Seringapatam, then the capital of Mysore. The men were circumcised, the unmarried girls carried away as concubines, and many of the married women were badly treated. The change of climate from the coast to the Mysore uplands, harsh treatment, and the unhealthiness of some of the places to which they were sent so broke the health of the converts that within a year 10,000 are said to have perished. A few Protestants are found in the towns of Kārwār and Honāvar. The only mission in the District is the Basel German Mission, with its head-quarters at Honāvar. It was established in 1845 and supports five schools.

General agricultural conditions.

The cultivated portions of the lowlands are either sandy plains lying along the shore and the banks of rivers, or narrow well-watered valleys, which are for the most part planted with rice, coco-nut groves, and areca-nut gardens. In the uplands the soil is generally a stiff clay, retentive of moisture. Owing to the want of inhabitants, and also to the malarious climate, many fertile and well-irrigated valleys lie waste and covered with forest; and difficulty is experienced in finding a sufficiency of labour for the lands already under cultivation.

Chief agricultural statistics and principal crops.

The District is entirely *ryotwāri*. The chief statistics of cultivation in 1903–4 are shown below, in square miles:—

Tāluka.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forest.
Haliyāl . .	1,056	107	5	22	914
Kārwār . .	281	50	3	14	215
Yellāpur .	760	71	2	111	563
Ankola . .	375	42	4	15	312
Sirsi . .	491	85	...	13	380
Kumta . .	224	55	4	16	148
Siddāpur .	332	46	...	6	264
Honāvar .	426	72	12	22	325
Total	*3,945	528	30	219	3,121

* These areas are based on the latest information.

Rice, of which there are many varieties, is the staple crop, the area in 1903–4 being 297 square miles. *Jowār*, chiefly grown in the Haliyāl *tāluka*, occupied one square mile. *Rāgi*, occupying 8 square miles, is grown in the hills for the food of the poorer classes. Pulses occupied 10 square miles, the chief being *mūg*, *kulith*, and *udid*, mostly grown in the coast *tālukas*. Sugar-cane and safflower are also grown to a considerable extent; and coco-nuts, areca-nuts, the lesser cardamoms (*Elettaria Cardamomum*), and pepper are produced in gardens in large quantities for home consumption and for export. The cultivation of coffee has been tried but proved unprofitable. Rice and garden lands are irrigated, the water being obtained from perennial streams. Near villages, especially on the coast, there are groves and avenues of Alexandrian laurel, which attains a large size. East Indian arrowroot grows wild and is also cultivated in some parts. The coco-nut palm is common along the coast, and is the chief liquor-yielding tree in the District. The palms, grown solely for their nuts, are calculated to yield, on good coast garden land, a net yearly profit of about Rs. 50 per acre. The areca-nut gardens, which are situated in the upland valleys, are surrounded by strong fences, within which are planted rows of coco-nut, jack, and mango-trees. The *pān* or betel-leaf vine (*Piper Betle*) is extensively grown; also the areca palm. The upland gardens further contain pepper, cardamoms, ginger, plantains; and sometimes pummelo, orange, lime, and iron-wood trees (*nāg-chāmpa*) are found in these higher tracts. Of vegetables, the *bhendi* is largely grown on the coast; and the egg-plant, the water-melon, and various pumpkin gourds and cucumbers are common.

Improvements in agricultural practice.

Formerly, in the more open parts of the forest, nomadic cultivation by brushwood burning (*kumri*) was carried on, principally by tribes of Marāthā extraction. The chief difficulty experienced in regard to cultivation in North Kanara since the practice of *kumri* was stopped is that known as the *betta* and *soppu* question. *Betta* is forest land assigned to the adjacent garden cultivators for the provision of *soppu* or leaf manure, which is indispensable in the cultivation of betel, pepper, and cardamoms. The improvident use of *betta* assignments, leading to the destruction of the forest on the land, results in a constant demand for further assignments, which cannot be continuously met unless the forest is to be entirely sacrificed to cultivation. Efforts are being made to come to a final settlement with each garden holder, by the allotment of an area of *betta* that is adequate for his requirements if treated with proper

care. The salt marshes on the coast are offered for reclamation on very favourable terms. The cultivators have little recourse to advances under the Land Improvement and Agriculturists' Loans Acts. During the decade ending 1903–4 only 1·5 lakhs was advanced, of which Rs. 27,000 was lent in 1899–1900 and Rs. 67,000 during the last three years of the period.

Cattle, ponies, &

The cattle are inferior everywhere, especially below the Ghāts. Kārwār, Kumta, Ankola, and Honāvar contain few domestic animals of local breed. In Kārwār, Kūmta, and Honāvar the Goanese and other Christians rear pigs. Fowls are kept by all classes except Brāhmans.

Irrigation

Of the total area of cultivated land, 30 square miles or 6 per cent. were irrigated in 1903–4. Canals and wells supply about 2 square miles each, tanks 4 square miles, and other sources 22 square miles. The Māvinkop tank supplies 579 acres in the Haliyāl *tāluka*. The other special irrigation works are insignificant. In 1903–4 there were 18,205 wells and 5,534 tanks used for irrigation. Rice and garden crops are watered by runnels brought from streams or rivers. Near the coast in the dry season, dams of earth, stones, and tree branches are thrown across streams and the lands near are watered, the dam being removed at the close of the dry season or left to be swept away by the floods. Some places are watered by canals from ponds. Where the level of the water is below the field, if not very deep, it is raised in a basket hung on ropes and swung through the water by two men. If water has to be raised from a greater depth, the lever and bucket lift is worked by either one or two men; and, if the depth is still greater, it is drawn by the leathern bag worked by a pair of bullocks. When brought to the surface, the water is generally carried to the crop along the hollowed trunk of a palm-tree. The cost of constructing wells varies from Rs. 200 in sandy soil to Rs. 700 in the loam.

Forests.

The forests of North Kanara are very extensive. Of the total area, 3,262[1] square miles are under forest, of which 548 square miles are 'protected.' The Forest department has charge of the whole area. The forests are divided into three sections: the table-land above the Ghāts, the main range, and the western spurs. The first of these contains splendid forests of teak, black-wood, and other trees 80 to 150 feet high, with fine clean stems up to 60 to 90 feet and 5 to 12 feet in girth. The central belt has some of the finest forest of the District,

[1] This figure is taken from the Forest Administration Report for 1903–4.

including the magnificent teak tracts along the Kālīnadī, Bedti, and Gangāvali rivers. Bamboos of several valuable kinds grow over the whole of the District. The more important trees in the Kanara forests are *khair*, *hedu*, *siras*, *dhaura*, *kāju*, *moha*, *phanas*, *undi*, *sisu*, *abnus*, *jāmbul*, *nandruk*, *bhirand*, *nan*, mango, sandal-wood, tamarind, teak, and *hirda*.

The forest revenue in 1903-4 exceeded 9 lakhs, mainly derived from the value of the timber sold from the dépôts. The cultivators are allowed to gather dry wood for fuel and leaves for manure, and to cut bamboos and brushwood for their huts and cattle-sheds. They are also supplied, free of charge, with such timber as they require for their own use. In former years most of the produce of the Kanara forests went westwards to the sea-coast, finding its chief markets in Bombay and Gujarāt. Of late years the sea trade has fallen off, and the bulk of the timber is now taken eastward to the open country in and beyond Dhārwār.

Minerals.

Iron ore is found in different places in the main range and spurs of the Western Ghāts, and in the island of Basarvājdrug about half a mile off the coast of Haldipur and about 2 miles from the town of Honāvar. The building stone in general use below the Ghāts is ironclay or laterite, and sometimes granite or granitic schist and clay-slate. Above the Ghāts it is nearly always granite. In the same tract lime is usually made from limestone pebbles dug out of the banks of streams. On the coast, lime is prepared by burning cockle and oyster shells, which are abundant in most of the creeks and rivers, especially in the Kālīnadī.

Industries.

In Kumta and Banavāsi there are skilled carvers of sandal-wood. A few hundred persons are employed in cutch-boiling. In the Ankola *tāluka* are 131 salt-works, of which 107 were working in 1903-4 and produced 39,000 maunds of salt. With these exceptions North Kanara has no special industries.

Commerce and trade.

The ports of Bhatkal and Honāvar were known in the early centuries of the Christian era, and rose to importance in the fifteenth and sixteenth centuries as centres of the trade in horses from the Persian Gulf. At the present day the chief ports are Kārwār, Kumta, Ankola, Honāvar, and Bhatkal, with a total trade in 1903-4 of 61 lakhs: namely, imports 20 lakhs, and exports 41 lakhs. The principal articles of export are rice, timber, coco-nuts, and spices; imports are piece-goods, metals, sugar, and spirits. Cotton from Dhārwār, formerly exported coastwise in large quantities from Kumta, now goes by rail direct to the port of shipment for Europe.

Communications. Railways and roads.

The Southern Mahratta Railway crosses the north-west angle of the District. North Kanara is traversed from north to south by two main roads, one above the Ghāts and one along the coast, and by four main roads at right angles to them which climb the Ghāts and link up the principal coast towns with Belgaum, Dhārwār, and Mysore State. These roads run from Kadra to Belgaum via Supa, from Kārwār to Dhārwār via Yellāpur, from Kumta to Dhārwār via Sirsi, and from Honāvar to Mysore territory via the Gersoppa Falls. In 1904 the District possessed 340 miles of metalled and 885 of unmetalled roads. All these, except 24 miles of metalled and 585 of unmetalled roads in charge of the local authorities, are maintained by the Public Works department. Avenues of trees are planted along 166 miles. There is steamer communication with Bombay during the fair season only, the steamers of the Bombay Steam Navigation Company calling at Kārwār, Gokarn, Kumta, Honāvar, and Bhatkal twice a week on their way to and from Mangalore.

Famine.

North Kanara, with an assured rainfall, is practically exempt from famine. Bad seasons have been known; but the records point to the fact that local scarcity has only occurred owing to an influx of immigrants from the Deccan and Ratnāgiri, or to the depredations of dacoits causing hindrance to the arrival of supplies. The District suffered from these causes in 1806, when men were forced to feed on roots and rice husks, and about 3,000 persons are said to have died of want. In the famine of 1877 relief was necessary on a small scale.

District subdivisions and staff.

The Collector is usually assisted by a member of the Indian Civil Service and a Deputy-Collector. The District comprises the eight *tālukas* of ANKOLA, HONĀVAR, KĀRWĀR, KUMTA, SIDDĀPUR, SIRSI, HALIYĀL, and YELLĀPUR. The *mahāls* or petty subdivisions are Supa attached to Haliyāl, Mundgod to Yellāpur, and Bhatkal to Honāvar *tāluka*. There are three Forest officers.

Civil and criminal justice.

There is a District and Sessions Judge at Kārwār and four Subordinate Judges. The District Judge acts as a court of appeal from the Subordinate Judges, of whom one decides all original suits without limit in value. Three of the Subordinate Judges exercise the powers of a Small Cause Court. There are twenty-five officers to administer criminal justice in the District. Crime is not of a serious nature below the Ghāts, save an occasional case of forgery; while above the Ghāts the most common offences are murder and dacoity, usually committed by persons from Dhārwār District.

Land revenue administration.

The ancient Hindu revenue system involved theoretically the levy of a sixth part of the gross produce of the land as the share of the State; but in practice much more than a sixth was taken under various pretexts, either in kind or commuted into money. Probably in late years as much as one-third was exacted; but when Haidar Alī and Tipū held Kanara, the District was rack-rented to such a ruinous extent that population was diminished by a third, and only half the nominal revenue could be collected. When the District was taken over by the British, it was at first proposed to introduce a permanent settlement; but, in consideration of its desolate condition, large reductions of revenue were made as a temporary measure, and a permanent settlement postponed. Before many years the opinion was expressed that the Government demand was far too high and unequal in its incidence, and operated against the spread of cultivation; and after an unsuccessful attempt to fix the revenue upon an average of past receipts, a survey was begun in 1822. This was rather a rough inspection than an accurate survey, but it showed that the area under cultivation was larger than had been supposed. By fixing the assessments at about a third of the produce, the general rate of taxation was lowered; but the revenue was increased and paid without difficulty. Some progress was made with the survey on this principle, when it was discovered that, as the rate was the same on all lands, good or bad, the worst lands were being abandoned; and it was then decided to classify the lands according to their quality. In 1848 a minute was recorded by the Collector, demonstrating that it was not possible to assess the District satisfactorily without positive information as to the extent and capabilities of the land and the amount of Government as distinct from private lands, and pointing out that private owners were on all sides extending their boundaries at the expense of Government. Still it was considered that the expense of a survey could not be afforded, and nothing was done until the District was transferred from Madras to Bombay. On its transfer, a survey was introduced, the greatest difficulty being experienced in identifying boundaries of villages and fields. Between 1864 and 1867 a survey settlement was made in 199 villages above the Ghāts, the whole District being completed by 1891. As the settlement spread towards the coast, the landholders showed signs of opposition; for it was found that the old assessments were far short of even a moderate rent, and that the revenue would be doubled. They refused to pay the new rates, and appealed to the civil courts for

redress, carrying their suits to the High Court, which finally upheld the right of Government to revise the assessments in Kanara; and since then opposition has died out. The survey increased the land revenue by 13 per cent. in Honāvar, by 36 per cent. in Ankola and Kumta, by 63 per cent. in Yellāpur, and by 115 per cent. in Kārwār. The revision survey of three *tālukas* was completed between 1895–1900, the assessment and area remaining unaffected. The total assessment on Government occupied land is now 10 lakhs. The average assessment per acre is: on 'dry' land 7 annas, on rice land Rs. 2–5, and on garden land Rs. 11–15.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . . .	7,60	2,96	10,18	13,58
Total revenue . . .	13,60	16,07	16,67	24,63

There are six municipalities in the District—KĀRWĀR, KUMTA, SIRSI, HALIYĀL, HONĀVAR, and BHATKAL—besides two temporary municipalities at GOKARN and ULVI. Outside the limits of these, local affairs are managed by the District board and eight *tāluka* boards. The total income of these bodies in 1903–4 was Rs. 1,18,000, the principal source being the land cess. The expenditure was Rs. 1,38,000, including Rs. 58,000 spent on roads and buildings. Municipalities and local boards.

The District Superintendent of police is assisted by 2 inspectors. There are 14 police stations in the District; and the total strength of the police force is 646: namely, 12 chief constables, 138 head constables, and 496 constables. The District jail at Kārwār has accommodation for 252 prisoners. In addition, there are 10 subsidiary jails and one lock-up in the District, with accommodation for 180 prisoners. The daily average number of prisoners in 1904 was 189, of whom one was a female. Police and jails.

Compared with other Districts of the Presidency, Kanara stands fifth in point of literacy. In 1901, 8·4 per cent. of the population (15 males and 1·1 females) could read and write. Education has spread widely of late years. In 1865–6 there were only 16 schools, attended by 929 pupils. By 1880–1 the number of pupils had increased to 6,511, and by 1890–1 to 12,214. In 1903–4 there were 208 public and 26 private institutions, attended by 9,689 male and 2,062 female pupils. The public institutions include one high school, 10 middle, and 197 primary schools. Of these one is maintained by Education.

Government, 147 are managed by local boards, and 37 by municipalities, 19 are aided and 4 unaided. The total expenditure in 1903–4 was Rs. 82,500, of which Rs. 16,000 was derived from fees, and Rs. 17,000 from Local funds. Of the total, 66 per cent. was devoted to primary education.

Hospitals and dispensaries. There is a hospital at Kārwār, and 12 dispensaries, including a railway medical institution, are situated in the District, with accommodation for 85 in-patients. In these institutions 50,500 patients were treated in 1904, of whom 749 were in-patients, and 941 operations were performed. The total expenditure was Rs. 22,800, of which Rs. 10,060 was met from municipal and Local funds.

Vaccination. The number of persons successfully vaccinated in 1903–4 was 11,850, representing a proportion of 26 per 1,000, which slightly exceeds the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. xv (1883); *Selections from the Records of the Bombay Government*, No. CLXIII (1883).]

Haliyāl Tāluka (or Supa).—Northern *tāluka* of North Kanara District, Bombay, lying between 14° 54′ and 15° 32′ N. and 74° 15′ and 74° 55′ E., with an area of 1,057 square miles, including the Supa petty subdivision (*petha*). It contains two towns, of which HALIYĀL (population, 4,992), the head-quarters, is the larger; and 237 villages. The population in 1901 was 56,130, compared with 63,348 in 1891. Haliyāl is one of the most thinly populated *tālukas* in the District, with a density of only 53 persons per square mile. The demand for land revenue in 1903–4 was 1·05 lakhs, and for cesses Rs. 7,000. The *tāluka* consists of a waving upland, seamed by the Kālīnadī river and its tributaries. The north and east form an open plain. The staple crops are rice and sugar-cane. Forests of teak, black-wood, and bamboo cover a large part. Haliyāl has a smaller rainfall than any other *tāluka* in the District, the annual average being only 47 inches.

Kārwār Tāluka.—North-westernmost *tāluka* of North Kanara District, Bombay, lying between 14° 44′ and 15° 4′ N. and 74° 4′ and 74° 32′ E., with an area of 281 square miles. It contains one town, KĀRWĀR (population, 16,847), the District and *tāluka* head-quarters; and 54 villages. The population in 1901 was 58,460, compared with 53,278 in 1891. The density, 208 persons per square mile, is much above the District average. The demand for land revenue in 1903–4 was 1·09 lakhs, and for cesses Rs. 7,000. The Kālīnadī flows from east to west through the centre, and as it enters the sea throws

up a bar of sand impassable to any but small craft. Along both banks of the river broad belts of rice land, broken by groves of palms and other fruit trees, stretch east to near the Western Ghāts. The soil on the plains is sandy, and near the hills is much mixed with granite. On the banks of the Kālīnadī, and along the seashore, are large tracts covered with a black alluvial deposit, charged with salt and liable to be flooded at high tides. To bring such land under tillage, a strong and costly wall must be built to keep out the sea. A heavy rainfall is required to sweeten the land, and then, without much manure and with due care, rich crops can be raised. Throughout the *tāluka* the houses are not gathered into villages, but are scattered along narrow lanes, standing in shady coco-nut palm gardens, some tiled and some thatched, each with its well, bathing-place, and cattle-shed. The annual rainfall is heavy, amounting at Kārwār town to nearly 110 inches.

Yellāpur.—North-eastern *tāluka* of North Kanara District, Bombay, lying between 14° 43′ and 15° 9′ N. and 74° 26′ and 75° 5′ E., with an area of 760 square miles. There are 196 villages, but no town; the head-quarters are at Yellāpur. The population in 1901 was 39,553, compared with 40,010 in 1891. The *tāluka* is more thinly populated than the rest of the District, with a density of only 52 persons per square mile. The demand for land revenue in 1903–4 was 1·05 lakhs, and for cesses Rs. 7,000. The east and north-east of the *tāluka* are bordered by plain country; but, except for a few detached fields and gardens, the greater part is forest. The west is full of forest-clad hills, occasionally crossed by streams and water-courses. In the valleys and along the sides of the watercourses are rice and sugar-cane fields, as well as areca-nut and coco-nut palm gardens. The south, which is also hilly, is fertile, and where water is available, produces excellent areca-nuts and coco-nuts. The chief rivers are the Bedti and Kālīnadī, which are joined by many small streams. The annual rainfall is fairly heavy, averaging 99 inches.

Ankola.—Western *tāluka* of North Kanara District, Bombay, lying between 14° 34′ and 14° 53′ N. and 74° 15′ and 74° 40′ E., with an area of 375 square miles. There are 90 villages, but no town; the head-quarters are at Ankola. The population in 1901 was 39,665, compared with 36,944 in 1891. The density, 106 persons per square mile, is slightly below the average for the District. The demand for land revenue in 1903–4 was Rs. 89,000, and for cesses Rs. 6,000. This

was formerly a portion of the Kumta *tāluka*, from which it was separated in 1880. In all suitable places rice-fields are laid out in tiers; and in the deep, well-watered valleys, which run between spurs into the base of the Western Ghāts, are large and valuable areca-nut gardens. Most of the land along the coast is sandy, but elsewhere the soil is formed from red laterite. The annual rainfall is heavy, averaging nearly 132 inches.

Sirsi Tāluka.—Eastern *tāluka* of North Kanara District, Bombay, lying between 14° 30′ and 14° 50′ N. and 74° 34′ and 75° 3′ E., with an area of 490 square miles. It contains one town, SIRSI (population, 6,196), the head-quarters; and 244 villages. The population in 1901 was 53,232, compared with 53,976 in 1891. The density, 109 persons per square mile, is slightly below the District average. The demand for land revenue in 1903–4 was 1·5 lakhs, and for cesses Rs. 10,000. The Western Ghāts rise on the western boundary of the *tāluka*, and in their neighbourhood lie deep moist valleys containing rich garden land between hills covered with evergreen forest. The country, as far as the middle of the *tāluka*, is covered with trees. Farther east, except some scattered evergreen patches, the forest becomes gradually thinner, and the trees more stunted. Sirsi is generally healthy, but is malarious between October and March. Water for drinking and irrigation is abundant. The staple crops are rice, sugar-cane, gram, *mūg*, *kulith*, *udid*, and castor-oil. Garden products comprise areca-nuts, cardamoms, coco-nuts, and black pepper. The *tāluka* forms an immense forest Reserve. Bamboo, teak, and sago-palm are the chief forest products. The annual rainfall averages 100 inches.

Kumta Tāluka.—Coast *tāluka* of North Kanara District, Bombay, lying between 14° 21′ and 14° 37′ N. and 74° 20′ and 74° 44′ E., with an area of 224 square miles. There are two towns, KUMTA (population, 10,818), the head-quarters, and GOKARN (4,834); and 111 villages. The population in 1901 was 66,040, compared with 62,803 in 1891. The density, 295 persons per square mile, is higher than in any other *tāluka*. The demand for land revenue in 1903–4 was 1·17 lakhs, and for cesses Rs. 7,000. The coast-line, beginning south of the Gangāvali river, consists of long stretches of sand, fringed with coco-nut gardens and crossed by frequent rocky highlands and headlands, and by tidal creeks. Eight to twelve miles inland the hills are clothed with forest, which becomes denser as the Ghāts are approached. Near the coast is a belt of rice land;

beyond is the central plain occupied by rice and sugar-cane; inland, rice gives place to *rāgi.* Water is plentiful. The soil is sandy or red loam. Kumta produces coco-nuts, rice, areca-nuts, pepper, sugar-cane, and pulses. The annual rainfall is heavy, averaging 133 inches.

Siddāpur.—South-easternmost *tāluka* of North Kanara District, Bombay, lying between 14° 12′ and 14° 31′ N. and 74° 40′ and 75° 1′ E., with an area of 332 square miles. There are 197 villages, the head-quarters being at Siddāpur. The population in 1901 was 41,342, compared with 42,751 in 1891. The density, 125 persons per square mile, exceeds the District average. The demand for land revenue in 1903-4 was 1.46 lakhs, and for cesses Rs. 9,000. Siddāpur is covered with hills in the west, which are thickly wooded towards the south but bare in the north. The valleys among the western hills are generally planted with spice gardens. The centre of the *tāluka* is a series of low hills, crossed by rich valleys and many perennial streams. In the east the hills are few and the country stretches in wide fairly-wooded plains, in parts dotted with sugar-cane and rice-fields; the extreme south-east is hilly and thickly wooded, mostly with evergreen forests containing timber of great girth and height. The small streams are of great value for garden irrigation. In the west the soil is red, and in the valleys a rich alluvial mould is found. In the east the soil is red in places, but is not rich. The chief products are rice, sugar-cane, Bengal gram, *kulith*, areca-nuts, pepper, cardamoms, betel-leaf, lemons, and oranges. Except in the west, where fever prevails during the later rains and the cold season, the *tāluka* is fairly healthy, and during the hot months the climate is agreeable. The annual rainfall averages 115 inches.

Honāvar Tāluka.—Southern *tāluka* of North Kanara District, Bombay, lying between 13° 53′ and 14° 26′ N. and 74° 26′ and 74° 47′ E., with an area of 426 square miles. It includes the petty subdivision (*petha*) of Bhatkal. The *tāluka* contains two towns, Honāvar (population, 6,929), the head-quarters, and Bhatkal (6,964); and 152 villages, including Manki (6,008) and Haldipur (5,109). The population in 1901 was 100,068, compared with 93,523 in 1891. The density, 235 persons per square mile, largely exceeds the District average. The demand for land revenue in 1903-4 was 1.9 lakhs, and for cesses Rs. 12,000. The *tāluka* is well watered by unfailing streams. The Gersoppa or Sharāvatī river intersects the country, flowing from east to west. The

famous GERSOPPA FALLS are 35 miles east of Honāvar town. Near the spurs of the Western Ghāts the forest begins, and, as elsewhere in Kanara, grows deeper and richer as the Ghāts are approached. The climate is good. The rainfall is the heaviest in the District, averaging 140 inches at Honāvar and increasing to 156 inches in Bhatkal.

Banavāsi (*Vanavāsi*).—Village in the Sirsi *tāluka* of North Kanara District, Bombay, situated in 14° 32′ N. and 75° 1′ E., on the banks of the Varadā river, 14 miles from Sirsi town. Population (1901), 2,260. It was formerly a place of considerable importance, but is now merely a village. The temple to Siva, though a mean building, had once very large endowments, and is still much frequented; it contains a very fine figure of Nandi, and a slab made from black granite, and in or near it are twelve inscriptions, dating from the second to the seventeenth century A.D. The car-drawing ceremony takes place here every year about March or April, and is attended by about 4,000 people, chiefly Haiga or Havik Brāhmans. The name of the town is mentioned by Ptolemy; it is also referred to in Buddhist records of the third century B.C. Banavāsi was the capital of the Kadamba kings until the early part of the thirteenth century. In 1220 and in 1278 the Banavāsi 'twelve thousand' was held by the Deogiri Yādavas; from the fourteenth century until 1560 it was under the Vijayanagar kings, and then passed to the Sonda chief.

Bhatkal (or Susagadi; Sanskrit, *Manipura*).—Town in the Honāvar *tāluka* of North Kanara District, Bombay, situated in 13° 59′ N. and 74° 32′ E., near the mouth of a small stream that falls into the Arabian Sea, about 64 miles south-east of Kārwār. Population (1901), 6,964. The town contains two small and two large mosques. The Musalmān population has the special name Navāyat, said to mean 'newly arrived,' owing to their being Sunni Persians, driven from the Persian Gulf by the persecution of their Shiah brethren in the eighth century. Many of these Navāyats are wealthy traders, and visit different parts of the country for business purposes, leaving their families at Bhatkal. From the fourteenth to the sixteenth century, under the names of Batticala (Jordanus, 1321), Battecala (Barbosa, 1510), and Baticala (De Barros), Bhatkal was a flourishing centre of trade, where ships from Ormuz and Goa came to load sugar and rice. In 1505 the Portuguese established a factory here, but a few years later the capture of Goa (1511) deprived the place of its importance. Two attempts were made by the British to establish an agency

at Bhatkal—the first in 1638 by a country association, the second in 1668 by the Company—but both failed. According to Captain Hamilton (1690–1720), the remains of a large city and many Jain and Brāhman temples were still to be seen in the beginning of the eighteenth century. The chief articles of trade are rice, betel-nuts, coco-nuts, and cotton cloth, the imports being valued at 1·22 lakhs a year and the exports at Rs. 62,000. Bhatkal was constituted a municipality in 1890, its income during the decade ending 1901 averaging Rs. 4,600. In 1903–4 the income was Rs. 6,500. Among the objects of interest at Bhatkal are the following temples: Khetapai Nārāyan Devasthān, built of black stone with some fine sculptures; Shāntappa Naik Tirumal Devasthān, built entirely of black basalt; Raghunāth Devasthān, a small ornate temple in the Dravidian style; Jattapa Naikana Chandranātheshwar *bastī*, a large Jain temple. About half a mile south-west of Bhatkal is a stone bridge said to have been built by the Jain princess Channābhaira Devī (1450). On the summit of the hill forming the northern boundary of the bay is a lighthouse visible for 8 miles. The town contains a dispensary and three schools, of which one is a middle school and one is for girls.

Castle Rock.—Village in the Supa *petha* of the Haliyāl *tāluka* of North Kanara District, Bombay, situated in 15° 24′ N. and 74° 20′ E., on the Southern Mahratta Railway, 290 miles from Poona, and an important frontier post. Population (1901), 117. The Goa frontier is 3 miles west of the railway station. There is a considerable trade with Portuguese possessions, the chief import being salt (value 10 lakhs yearly), and the chief exports grain and cotton for shipment at Marmagao (30 lakhs). Castle Rock has an elevation of 3,000 feet and commands many beautiful views. The chief object of interest in the vicinity is the Dudh-sāgar waterfall on the *ghāt* incline, a few miles beyond the Portuguese frontier. The village contains a dispensary belonging to the railway company.

Chitākul.—Village in the Kārwār *tāluka* of North Kanara District, Bombay, situated in 14° 51′ N. and 74° 10′ E., on the coast, about 4 miles north of Kārwār. Population (1901), 4,796. Though it is now confined to the village, the name Chitākul once included a considerable tract of land. Under the forms Sindabur, Chintabor, Cintabor, Cintapor, Cintacola, Cintaçora, Chittikula, and Chitekula, the place appears in the writings of many authors, from the Arab traveller Masaudi (about 900) to the English geographer Ogilby (about 1660). It is frequently referred to in the accounts of the vicissitudes

of Portuguese power in India. In 1715, according to a local account, Basva Ling, a Sonda chief (1697–1745), built a fort at Chitākul, on the north or right bank of the Kālīnadī, and called it Sadāshivgarh after his father. From this time the village has locally been called Sadāshivgarh. The fort is built on a flat-topped hill 220 feet high, with a steep and inaccessible face on the side toward the Kālīnadī. In 1752 the Portuguese declared war against the Sonda chief, and after a slight conflict carried the fort, which they greatly strengthened. Two years later they restored the fort to the Sonda chief. In 1763 it was taken by Haidar Alī's general, Fazl-ullah Khān. In 1783 a detachment of General Mathew's force was sent to occupy Sadāshivgarh. In 1799 it was garrisoned by Tipū's troops.

Gersoppa Village (= 'the cashew-nut').—Village in the Honāvar *tāluka* of North Kanara District, Bombay, situated in 14° 14′ N. and 74° 39′ E., on the Sharāvatī, about 18 miles east of Honāvar and a similar distance from the falls known by this name. The village is pleasantly placed on the left bank of the river, shaded by a grove of coco-nuts. About a mile and a half east of Gersoppa are the extensive ruins of Nagar-bastikere, which was the capital of the Jain chiefs of Gersoppa (1409–1610), and is locally believed to have contained, in its prosperous days, 100,000 houses and 84 temples. The chief object of interest is a cross-shaped Jain temple, with four doors and four images. There are five other ruinous temples, in which are a few images and inscriptions. The temple of Varddhamān or Mahāvīraswamī contains a fine black stone image of Mahāvīra, the twenty-fourth or last Jain Tīrthankar. There are four inscribed stones in Varddhamān's temple.

According to tradition, the Vijayanagar kings (1336–1565) raised a Jain family of Gersoppa to power in Kanara; and Buchanan records a grant to a temple of Gunvanti near Manki in 1409 by Itchappa Wodearu Pritani, the Gersoppa chief, by order of Pratāp Dev Rai Trilochia of the family of Harihar. Itchappa's granddaughter became almost independent of the Vijayanagar kings. The chiefship seems to have been very often held by women, as almost all the writers of the sixteenth and early part of the seventeenth century refer to the queen of Gersoppa or Bhatkal. In the early years of the seventeenth century Bhaira Devī of Gersoppa, the last of the name, was attacked and defeated by Venkatappa Naik, the chief of Bednur. According to a local account, she died in 1608. In 1623 the Italian traveller Della Valle describes the place as once a famous city, the seat of a queen, the

metropolis of a province. The city and palace had fallen to ruin and were overgrown with trees; nothing was left but some peasants' huts. So famous was the country for its pepper that the Portuguese called the queen of Gersoppa 'Rainha da Pimenta,' or the Pepper-Queen.

Gokarn.—Town in the Kumta *tāluka* of North Kanara District, Bombay, situated in 14° 32′ N. and 74° 19′ E., 10 miles north of Kumta town. Population (1901), 4,834. Gokarn is a place of pilgrimage frequented by Hindu devotees from all parts of India, especially by wandering pilgrims and ascetics who go round the principal shrines of the country. The Mahābaleshwar temple here is built in the Dravidian style, and is famed as containing a fragment of the original *lingam* given to Rāvana by Siva—one of the twelve famous *lingams* of all India. Upwards of a hundred lamps are kept perpetually alight from funds supplied by devotees. A fair is held annually in February, at which from 2,000 to 8,000 people assemble. Gokarn is mentioned in both the Rāmāyana and Mahābhārata. The municipality, established in 1870, had an average income during the decade ending 1901 of Rs. 1,300. In 1903-4 the income was Rs. 1,600. Besides the great temple of Mahābaleshwar, twenty smaller shrines, thirty *lingams*, and thirty holy bathing-places are held in special reverence by Smārtas and Lingāyats.

Haldipur.—Village in the Honāvar *tāluka* of North Kanara District, Bombay, situated in 14° 20′ N. and 74° 28′ E., 5 miles north of Honāvar town. Population (1901), 5,109. It is defended on the sea side by Basavrājdurg, better known as the Fortified Island, about half a mile from the coast. Haldipur has a large number of Hindu temples, at three of which car processions take place annually. A fair attended by 5,000 to 6,000 people is held in March. Under the kings of Bednur (1570-1763) and Mysore (1763-1800), it was the head-quarters of the Honāvar *tāluka*. In 1801 Buchanan found it an open town, with 352 houses, to the east of a considerable creek running through the plain. Its old name of Handipur or 'hog town' was changed by Haidar Alī to Haldipur or 'turmeric town.'

Haliyāl Town.—Head-quarters of the *tāluka* of the same name in North Kanara District, Bombay, situated in 15° 20′ N. and 74° 46′ E., 9 miles from the Alnāvar station on the Southern Mahratta Railway. Population (1901), 4,992, including suburbs. Colonel Wellesley, afterwards the Duke of Wellington, visited Haliyāl, and speaks highly in his

Dispatches of its importance as a frontier post. The Haliyāl timber dépôt supplied the best bamboo, teak, and black-wood of the North Kanara jungles before the opening of the new dépôt at Tāvargatti. The municipality, which dates from 1865, had an average income during the decade ending 1901 of Rs. 8,400. In 1903-4 the income was Rs. 8,700. The town contains a dispensary and four schools.

Honāvar Town (or Onore).—Head-quarters of the *tāluka* of the same name in North Kanara District, Bombay, situated in 14° 17′ N. and 74° 27′ E., 50 miles south-east of Kārwar, on the north of an extensive inlet of the sea, which at its south-eastern extremity receives the Gersoppa or Sharāvatī river. Population (1901), 6,929. In 1903-4 the value of the exports was 6 lakhs, and of the imports 4 lakhs.

The town is mentioned by Abul Fida (1273-1331), and shortly afterwards (1342) is described by Ibn Batuta as rich and well governed, with 23 schools for boys and 13 for girls. At the beginning of the sixteenth century it is said to have exported much rice, and to have been frequented by shipping. In 1505 the Portuguese built a fort at Honāvar; and two years later, in consequence of a dispute with the king of Vijayanagar, they attacked and burnt the town. Cesare de' Federici (1563-81) calls 'Onor' a fort of the Portuguese; and in 1623 Della Valle found it a small place, still in the hands of the Portuguese. On the decay of the Portuguese power in India, Honāvar was acquired by the sovereigns of Bednur; and on the conquest of Bednur by Haidar Alī, this town also submitted to him. In 1783 it was taken by assault by a British force dispatched from Bombay, under the command of General Mathews; and in 1784 was successfully defended by Captain Torriano against Tipū Sultān, to whom, however, in the same year, it was ceded by the Treaty of Mangalore. On the overthrow of Tipū in 1799 it again came into the possession of the British. The town lies about 2 miles from the coast at the mouth of the Gersoppa river, which, with a dangerous bar and an entrance channel about 300 feet broad, expands into a lake 5 miles long and 1 to 2 miles broad. In the lake are five islands, the largest 3 miles long, covered with palm-trees. About 2 miles north of Honāvar is Rāmtīrth, with a temple of Rāmling. Basavrājdurg, also called Fortified Island, about 3 miles from Honāvar, was fortified by Sivappa Naik of Bednur. Honāvar has been a municipality since 1890, and had an average income during the decade ending 1901 of Rs. 4,100. In 1903-4 the income was

Rs. 8,000. The town contains a Subordinate Judge's court, a dispensary, a middle school, and four other schools.

Kārwār Town (*Kadvād*).—Head-quarters of North Kanara District and of the *tāluka* of the same name, Bombay, situated in 14° 49′ N. and 74° 8′ E., 50 miles south-east of Goa and 295 miles south-east of Bombay. Population (1901), 16,847, including suburbs. The municipality, established in 1864, had an average income during the decade ending 1901 of Rs. 13,000. In 1903-4 the income was Rs. 12,000.

Old Kārwār, on the banks of the Kālīnadī, 3 miles to the east of the new town, was once an important place of commerce. It is first mentioned in 1510 as Caribal, on the opposite side of the river to Cintacora or Chitākul. During the first half of the seventeenth century the Kārwār revenue superintendent, or *desai*, was one of the chief officers of the Bijāpur kingdom, of which it formed a part. In 1638 the fame of the pepper of Sonda induced Sir William Courten's Company to open a factory at Kārwār. In 1660 the factory was prosperous, exporting the finest muslins in Western India; the weaving country was inland to the east, at Hubli and other centres, where as many as 50,000 weavers were employed. Besides the great export of muslin, Kārwār provided pepper, cardamoms, cassia, and coarse blue cotton cloth (*dungari*). In 1665 Sivajī, the founder of the Marāthā power, exacted a contribution of Rs. 1,120 from the English. In 1673 the *faujdār*, or military governor of Kārwār, laid siege to the factory. In 1674 Sivajī burnt Kārwār town; but the English were treated civilly, and no harm was done to the factory. In 1676 the factory suffered from the exactions of local chiefs, and the establishment was withdrawn in 1679. It was restored in 1682 on a larger scale than before. In 1684 the English were nearly driven out of Kārwār, the crew of a small vessel having stolen and killed a cow. In 1685 the Portuguese stirred up the *desais* of Kārwār and Sonda to revolt. During the last ten years of the seventeenth century the Dutch made every attempt to depress the English pepper trade; and in 1697 the Marāthās laid Kārwār waste. In 1715 the old fort of Kārwār was pulled down, and Sadāshivgarh was built by the Sonda chief. The new fort seriously interfered with the safety of the English factory; and, owing to the hostility of the Sonda chief, the factory was removed in 1720. The English, in spite of their efforts to regain the favour of the Sonda chiefs, were unable to obtain leave to reopen their factory at Kārwār till 1750. The Portuguese in 1752 sent

a fleet and took possession of Sadāshivgarh. As the Portuguese claimed the monopoly of the Kārwār trade, and were in a position to enforce their claim, the English agent was withdrawn. In 1801 Old Kārwār was in ruins. Very few traces of it remain.

The new town dates from after the transfer of North Kanara District to the Bombay Presidency, before which it was a mere fishing village. The present town and neighbouring offices and residences are in the lands of six villages, and within the municipal limits of the town are nine villages. A proposal was strenuously urged in Bombay to connect Kārwār by a railway with the interior, so as to provide a seaport for the southern cotton Districts. Between 1867 and 1874 the hope that a railway from Kārwār to Hubli would be sanctioned raised the value of building sites at Kārwār, and led to the construction of many warehouses and dwellings. The scheme was finally abandoned in favour of the line through Portuguese territory to Marmagao. The trade of Kārwār has markedly decreased since the opening of this railway.

Kārwār is the only safe harbour between Bombay and Cochin during all seasons of the year. In the bay is a cluster of islets called the OYSTER ROCKS, on the largest of which, Devgad island, a lighthouse has been built. There are two smaller islands in the bay (138 and 120 feet above the level of the sea), which afford good shelter to native craft and small vessels during the strong north-west winds that prevail from February to April. From the Kārwār port-office, on a white flagstaff, 60 feet from the ground and 65 feet above high water, is displayed a red fixed ship's light, visible three miles; with the light bearing east-south-east a vessel can anchor in 3 to 5 fathoms. About 5 miles south-west and 2 miles from the mainland, the island of ANJIDIV rises steep from the sea, dotted with trees and the houses of its small Portuguese settlement. Coasting steamers belonging to the Bombay Steam Navigation Company call twice a week at Kārwār throughout the fair-weather season. These steamers generally make the trip between Kārwār and Bombay in thirty-six hours. The value of the trade at Kārwār port during the year 1903–4 is returned as follows: imports 3·34 lakhs, and exports Rs. 82,000. Kārwār bay is remarkable for its beautiful scenery. It possesses a fine grove of casuarinas, beneath which the sea breaks picturesquely on the long stretch of white sand, from the mouth of the Kālīnadī to the sheltered inlet of Baitkal cove. Besides the chief revenue and judicial

offices, the town contains a Subordinate Judge's Court, a jail, a hospital, a high school with 237 pupils, two middle schools, and eight other schools.

Kumta Town.—Head-quarters of the *tāluka* of the same name in North Kanara District, Bombay, situated in 14° 26′ N. and 74° 25′ E., on the sea-coast on the north side of the Kumta creek, one mile east of the lighthouse, and about 113 miles north of Mangalore and 40 miles south of Kārwār. Population (1901), 10,818, including suburbs. The municipality, constituted in 1867, had an average income during the decade ending 1901 of Rs. 17,000. In 1903–4 the income was Rs. 17,500. Kumta, though an open roadstead, was formerly a place of large trade, owing to the roads which connect it with the cotton marts of Dhārwār; but this traffic has been much affected by the railway through Portuguese territory. The lighthouse, situated in 14° 25′ N. and 74° 23′ E., 6 miles to the north of Fortified Island, consists of an iron tubular mast 60 feet high, erected on a hill about half a mile to the east of the rocky cliffs of Kumta Point. It exhibits a fixed white light, at an elevation of 116 feet above sea-level, which is visible in clear weather at a distance of 12 miles from the deck of a ship. This light overlooks the mouth of the creek, which leads boats at high water up to the cotton warehouse on the south side of the town. The town contains a Subordinate Judge's court, a dispensary, a middle school, and nine other schools.

Kumta seems to have been formerly a place of some note. Its lanes are straight and fenced with stone walls, and it has many coco-nut gardens. Twice it had the misfortune of having Tipū's army encamped in its vicinity, and on both occasions it was burned down by some of the irregulars. Its trade consists chiefly of cotton, spices, and grain, the first coming from Dhārwār District and the rest from the upland country of North Kanara. The only manufacture is the carving of a few articles of sandal-wood, which are exported to Bombay. Kumta port is one of the seven ports which make up the Honāvar Customs division. The trade is valued at 38 lakhs: namely, imports 12 lakhs, and exports 26 lakhs.

Manki.—Village in the Honāvar *tāluka* of North Kanara District, Bombay, situated in 14° 11′ N. and 74° 32′ E. Population (1901), 6,008. The remains of several Jain temples point to the fact that Jain influence was formerly paramount in Manki, while several inscriptions show that the place was once of considerable importance. A dilapidated

fort on the coast is traditionally reported to have been the former stronghold of the Karagars (now a degraded class); but more probably it was held on behalf of the rulers of Vijayanagar by the Sheorogars, a class claiming Kshattriya descent, who are more numerous in Manki than in any other part of the District. After the fall of Vijayanagar, Manki was possessed by the chiefs of Bednur and eventually passed into the hands of Haidar Alī. The downfall of Tipū added it with the rest of Kanara to British territory. Manki contains three old Hindu temples of uncertain date. It formerly possessed a large export trade in rice, raw sugar, and coco-nuts; but at present the annual imports amount to only Rs. 1,270 and the exports to Rs. 180.

Mirjān.—Village in the Kumta *tāluka* of North Kanara District, Bombay, situated in 14° 30′ N. and 74° 28′ E., about 5 miles north of Kumta town. Population (1901), 1,500. It has a ruined fort said to have been built by Sarpān Malik, probably a reminiscence of the Bijāpur title Sharīf-ul-mulk. Mirjān has been supposed to be the ancient Muziris mentioned by Pliny as the first trading town in India; but an alternative is to be found in Muyiri, the old name of Crānganūr, 20 miles north of Cochin. Under the Vijayanagar kings Mirjān was held by local tributary chiefs. Albuquerque visited it in 1510. It subsequently passed to Bijāpur, and later to the Bednur chief Sivappa Naik. The Marāthās seized it in 1757. It suffered from the depredations of Haidar Alī, and was destroyed by Tipū. Fryer visited Mirjān in the seventeenth century, and has recorded a description of it.

Oyster Rocks (or Devgad).—A cluster of islands about a mile in length east to west, in North Kanara District, Bombay, 2 miles west of Kārwār. The north-west island, the highest, is 138 feet above the sea, and at a distance of a cable's length from the shore there is a depth of seven fathoms. On the top of this island, in 14° 49′ N. and 74° 4′ E., a lighthouse has been built. It is a round tower of white granite, 72 feet high and 210 feet above mean sea-level. The light is a fixed white dioptric of order 1, which in clear weather can be seen for 20 miles.

Pigeon Island (also known as Netrāni or Nitrān).—Island 10 miles off the coast of North Kanara District, Bombay, situated in 14° 1′ N. and 74° 16′ E., about 15 miles north-west of Bhatkal. The island is about 300 feet high and half a mile broad. It is well wooded, and has a good landing on the west side. In clear weather it is visible 25 miles off. Its shores

abound in white coral and lime, which are taken by boats to the mainland. The number of pigeons that haunt its caves have given the island its name. Besides pigeons, the island is frequented by the swiftlet (*Collocalia unicolor*), whose nests the Chinese esteem a delicacy. It also contains one of the largest known colonies of the white-bellied sea-eagle.

Sirsi Town.—Head-quarters of the *tāluka* of the same name in North Kanara District, Bombay, situated in 14° 37′ N. and 74° 50′ E., 320 miles south-east of Bombay city, and about 60 miles south-east of Kārwār; 2,500 feet above sea-level. Population (1901), 6,196, including suburbs. The ground on which the town stands consists of quartz and gravel, the highest points of which are covered by a bed of laterite, while in the ravines on the western and northern sides there is micaceous schist broken through by diorite. Sirsi has been a municipality since 1866, with an average income during the decade ending 1901 of Rs. 15,000. In 1903–4 the income was Rs. 23,000. Every alternate year a fair is held in honour of the deity Mari, which lasts for a week, and is attended chiefly by low-caste Hindus to the number of about 10,000 persons. Colonel Wellesley in 1800 sent a battalion to Sirsi to drive out banditti. The town contains a Subordinate Judge's court, a dispensary, a middle school, and three other schools.

Sonda.—Village in the Sirsi *tāluka* of North Kanara District, Bombay, situated in 14° 44′ N. and 74° 49′ E., 10 miles north of Sirsi town. Population (1901), 231. Sonda, now a small village, was between 1590 and 1762 the capital of a family of Hindu chiefs. The only objects of interest are its old fort, and Smārta, Vaishnav, and Jain monasteries. The fort is ruined and deserted, and its high walls are hidden by trees and brushwood. The masonry shows traces of considerable architectural skill. The posts of the gateway are single blocks 14 to 16 feet long, and in the quadrangle are several ponds lined with large masses of finely dressed stone. Perhaps the most remarkable of the fragments is a trap slab, 12 feet square and 6 inches thick, perfectly levelled and dressed, which rests on five richly carved pillars about 3 feet high. Except this slab, which is locally believed to be the throne, not a vestige is left of the palace of the Sonda chiefs. The town is said to have had three lines of fortifications, the innermost wall being at least 6 miles from the modern Sonda. The space within this wall is said to have been full of houses. In the two spaces surrounded by the outer lines of wall the

houses were scattered in clumps with gardens between. A religious festival with a car-procession takes place in April–May, attended by from 2,000 to 3,000 people. The Sonda chiefs were a branch of the Vijayanagar kings, who settled at Sonda (1570–80). In 1682 Sambhājī led a detachment against Sonda, but apparently without effect. During 1745 to 1762 the place suffered much from Marāthā attacks. In 1764 Haidar Alī took and destroyed Sonda, and compelled the chief to take shelter in Goa with his family and treasure. The representative of the Sonda family still holds a position of honour in Goa.

Ulvi.—Village in the Haliyāl *tāluka* of North Kanara District, Bombay, situated in 15° N. and 74° 30′ E. Population (1901), 191. It contains a Lingāyat shrine in honour of Basava, the founder of the Lingāyat religion, who died at Ulvi in 1150. There are some temples of great antiquity. The Budbud Tale or 'bubble well' is another object of interest, and is held in much reverence. A religious fair is held annually, at which nearly 5,000 pilgrims assemble. Since 1878 the provisions of the municipal law have been applied during the period for which the fair is held.

Yān (or Bhairavkshetra).—Valley in the Kumta *tāluka* of North Kanara District, Bombay, situated in 14° 35′ N. and 74° 35′ E., about 15 miles north-east of Kumta and midway between the Devīmane and Vaddi passes. Population (1901), 143. Yān is a beautiful valley almost encircled by spurs from the Western Ghāts. On the sea side it is shut in by the lofty Motigudda hills, from which a low woody range runs to the main line of the Ghāts. The valley, which is a noted place of pilgrimage, with shrines of Mahādeo and Pārvatī, is approached by two steep and difficult footpaths: one from Harita, about 8 miles to the south, the other from the Vaddi pass, about 3 miles to the north. The hills above give a fine view of the Yān valley and of the large-pinnacled limestone rocks rising over the tree-tops like the battlements of a castle. Several great masses stand out farther down the ravine, but the rock which gives the place its interest and sacredness is near the upper end of the pass. It rises about 150 feet, an enormous mass of black crystalline limestone, the sides roughened by exposure to the air. A path leads about half-way up the side of the rock to a great horizontal gap or cave-like fissure about 120 feet long, 10 broad, and 10 high. Bees, which are at times dangerous, have long combs hanging from a ledge high up on one of the corners of the rock; and in

the clefts and hollows of the cliff-face flocks of bronze pigeons build, and by their noisy flight add to the wildness of the scene. Near the middle of the cave, from a small ledge or knob of rock close to the roof, a small stream drips on a granite *lingam*. Close by are the dwellings of the Havik Brāhman ministrants, who with their families live in the cave and perform the daily worship of Siva. To the south, a little below the chief gap or cavern, is a smaller cave with a bronze female figure 9 feet high of Chandi Amma, a local goddess whom the Brāhmans have adopted as a form of Pārvatī. Through the middle of the rocks flows a stream known from its clearness as Chandi, or the 'silver water,' and farther down as Anegundi, or the 'elephant's pool.' It falls into the Aghnāshini or Tadri river at Upinpattan, about 8 miles north-east of Kumta. At the great fair in the month of Māgh (February–March) large numbers of pilgrims visit Yān, especially women praying for children. Worship attended by people from the neighbouring villages begins on the dark tenth of Māgh and lasts for five days.

Kolāba District.—District in the Southern Division of the Bombay Presidency, lying between 17° 51′ and 19° 8′ N. and 72° 51′ and 73° 45′ E., with an area of 2,131 square miles. It is bounded on the north by Bombay harbour and the Kalyān and Murbād *tālukas* of Thāna District; on the east by the Western Ghāts, the Bhor State, and the Districts of Poona and Sātāra; on the south and south-west by Ratnāgiri; and on the west by the Janjīra State and the Arabian Sea.

Boundaries, configuration, and hill and river systems.

Kolāba District is a rugged belt of country from 15 to 30 miles broad, stretching south from Thāna and Bombay harbour to the foot of the Mahābaleshwar hills, 75 miles south-east. Situated between the Western Ghāts and the sea, the District contains spurs of considerable regularity and height, running westwards at right angles to the main range, as well as isolated peaks or lofty detached ridges. A series of minor ranges also run north and south between the main range and the sea. The great wall of the Western Ghāts forms the chief natural feature. Of other ranges, the chief is the line of hills that from near the foot of the Bor pass stretches north-west in the flat tops of Mātherān and Prabal. Running north and south through the centre of the Panvel *tāluka* is the broken spur which ends southwards in Karnāla or Funnel Hill. Farther west is the lower line of the Parshik hills, and in the south the long ridges that centre in the precipitous fortified peak of Mānikgarh (1,800 feet). South of Bombay harbour a well-marked rugged

belt rising in bare rocky slopes runs south and south-east, with the two leading peaks of Kankeshwar (1,000 feet) in the extreme north and Sāgargarh (1,164 feet) about 6 miles farther south. The most famous peak in the District is Raigarh, on a spur of the Western Ghāts, where Sivajī built his capital.

The sea frontage of the District throughout the greater part of its length is fringed by a belt of coco-nut and areca-nut palms. Behind this belt is situated a stretch of flat country devoted to rice cultivation. In many places, along the banks of the salt-water creeks, there are extensive tracts of salt marsh-land, some of them reclaimed, some still subject to tidal inundation, and others set apart for the manufacture of salt. A few small rivers, rising in the hills to the east of the District, pass through it to the sea. The chief of these are the Ulhās, Pātālganga, Ambā, Kundalika, Māndād, and Sāvitrī. Tidal inlets, of which the principal are the Ulvā or Panvel, the Pātālganga or Apta, the Ambā or Nāgothana, the Kundalika, Roha, or Chaul, the Māndād, and the Sāvitri or Bānkot creek in the south, run inland for 25 or 30 miles, forming highways for a brisk trade in rice, salt, firewood, and dried fish. These inlets have of late years silted up to a considerable extent, and it seems possible that their value as highways may in future decline on this account. The creek of the Pen river is navigable to Antora, 2 miles from Pen, by boats of 7 tons during ordinary tides, and by boats of 35 tons during spring-tides. Near the coast especially, the District is well supplied with reservoirs. Some of these are handsomely built of cut stone, but of no great size, and only a few hold water throughout the year.

Geology. The rock formation is trap. In the plains it is found in tabular masses a few feet below the soil and sometimes standing out from the surface. In the hills it is tabular and is also found in irregular masses and shapeless boulders, varying from a few inches to several feet in diameter. In many places the surface of the trap has a rusty hue showing the presence of iron. Kolāba has three hot springs, at Unheri near Nāgothana and at Son and Kondivti in Mahād.

Botany. The forest areas of Kolāba contain a number of trees, of which the commonest are teak, mango, *ain* (*Terminalia tomentosa*), *jāmba* (*Xylia dolabriformis*), and *kinjal* (*Terminalia paniculata*). The leaves of the *apta* (*Bauhinia racemosa*), which is too small to yield timber, are used in the manufacture of native cigarettes; cart-wheels are made from the timber of the *khair* (*Acacia Catechu*); and the fruit of the tamarind

(*chinch*) is largely utilized as medicine and spice. The *gorak chinch* or baobab (*Adansonia digitata*), though growing to an enormous size, is not utilized. Fuel is provided chiefly by the mangrove and *tivar* (*Sonneratia acida*), which grow in the salt marshes, and by such creepers and shrubs as the *phalsi* (*Grewia asiatica*), *kusar* (*Jasminum latifolium*), *kaneri* (*Nerium odorum*), and *garudvel* (*Entada scandens*). Other creepers are the *rāntur* (*Atylosia Lawii*), *mātisul* (*Leonotis nepetifolia*), and *sāpsan* (*Aristolochia indica*), which are used medicinally, and the *shikakai* (*Acacia concinna*), which bears a nut of cleansing properties.

For a hilly and wooded District, Kolāba is poorly stocked with game. Tigers and leopards are occasionally found, especially in the Sāgargarh range, and bears on the Western Ghāts. Hyenas and jackals abound. Bison, *sāmbar*, and *chītal* have been shot, but are very rare. Of game-birds, the chief is the snipe. Duck are neither common nor of many kinds. The other game-birds are partridge, quail, plover, lapwing, curlew, peafowl, grey jungle-fowl, red spur-fowl, and the common rock and green pigeons. Snakes are numerous but of no great variety, and the cobra, though common, does not cause any large number of deaths. In the coast villages, the fishermen cure large quantities of fish for export to Bombay by the inland creeks. The sea fisheries, especially of the Alībāg villages, are of considerable importance, affording a livelihood of 6,800 fishermen in the District; but the latter are gradually spoiling their own prospects by the use of nets so constructed that small fry, as well as half-grown fish, are exterminated before they attain a marketable size. The chief species caught, mostly by means of stake-nets, are pomphlet, *bamelo* or *bombil*, and *halwa*. **Fauna.**

There are four distinct climatic periods—the rains from June to October; the damp hot season in October and November on the cessation of the rains; the cold season from December to March; and the dry hot season from March to June. In the region about Alībāg there is always a sea-breeze. Mahād is almost entirely cut off from the sea-breeze, and is subject to much greater changes of temperature than most of the District. In the hot months the heat is very oppressive in Karjat, except on the hill-tops. The temperature varies from 65° in January to 92° in May, with an average of 80°. The rainy season is considered the healthy period of the year. The rainfall in the inland subdivisions is much heavier than on the coast, amounting to 130 inches. The annual fall at the District head-quarters averages 88 inches. **Climate, temperature, and rainfall.**

History. Hindu, Muhammadan, Marāthā, and British rulers have, as throughout most of the Peninsula, in turn administered the country of Kolāba. But it is the rise, daring, and extinction of the pirate power of the Marāthā Angria that vests the history of this part of the Konkan with a peculiar interest. The early rulers were most probably local chiefs. Shortly after the beginning of the Christian era, the Andhra dynasty, whose capital was at Paithan, were the overlords of Kolāba. About this time (A.D. 135–150), the Greek geographer Ptolemy describes the region of Kolāba under the name of Symulla or Timulla, probably the Chaul of later days. In Ptolemy's time the Sātavāhanas or Andhras were ruling in the Konkan as well as in the Deccan; and for many years the ports on the Kolāba seaboard were the emporia of a large traffic, not only inland, over the Western Ghāts across the Peninsula, but by way of the Red Sea and the Persian Gulf to Egypt, Arabia, and Abyssinia. In the sixth century Kolāba, with all the Northern Konkan, came under the sway of the Chālukyas, whose general, Chana-danda, sweeping the Mauryas or local rulers before him 'like a great wave,' captured the Maurya citadel Purī, 'the goddess of the fortunes of the western ocean.' In the thirteenth century, by which time the rule of the Chālukyas had passed away, the District was held by the Deogiri Yādavas.

Immediately prior to the appearance of the Muhammadans, tradition assigns to Kolāba a Kanarese dynasty, probably the rulers of Vijayanagar. Nothing, however, is known about them. The Bahmani Sultāns, who ruled from 1347 to 1489, reduced the whole Konkan to obedience, and held Chaul as well as other posts in Kolāba District. The Bahmani dynasty was followed by kings from Gujarāt. A period of Portuguese ascendancy established at Chaul (1507–1660) preceded the rise of the Angrias, and was partly contemporaneous with the conquest of all the rest of the District by the Mughals and Marāthās. The Mughals, who acquired the sovereignty in 1600, were in 1632 ousted by Shāhjī Bhonsla, a servant of the Bijāpur kings and father of Sivajī, who founded the Marāthā power. Sivajī built two small forts near Ghosāle and Raigarh; repaired the strongholds of Suvarndrug and Vijayadrug, which stand on the coast-line below Bombay; and in 1674 caused himself to be enthroned at Raigarh. Nine years after Sivajī's death in 1680, the seizure of Raigarh restored control of the country to the Mughals. The period of the Āngrias, who terrorized the coast while the Muhammadans were powerful

inland, lasted for 150 years—from 1690 to 1840, when Kānhojī II died in infancy and the country was taken over by the British.

Kānhojī, the first of the Angrias, was in 1698 the admiral of the Marāthā fleet, having his head-quarters at Kolāba, an island-fort close to Alībāg and within 20 miles of the present city of Bombay. From here he had long harassed shipping on the coast from Malabar to Bombay; in 1713 he threw off his allegiance on Rājā Shāhū, and, having defeated and captured the Peshwā, set up an independent rule in ten forts and sixteen minor posts along the Konkan coasts. Having conquered the Sīdīs of Janjīra, his rivals in buccaneering, Kānhojī, with a considerable fleet of vessels, ranging from 150 to 200 tons burden, swept the seas from his fort of Vijayadrug. In 1717 his first piracies against English trade occurred. In retaliation the English assaulted Vijayadrug, but the assault was beaten off. On two occasions within the next four years, Kānhojī withstood the combined attacks of the English and Portuguese. On his death in 1731 the Angria chiefship was weakened by division between Kānhojī's two sons, of whom Sambhojī Angria was the more enterprising and able. Sambhojī was succeeded in 1748 by Tulājī; and from that date until the fall of Vijayadrug before the allied forces of the Peshwā and the British at Bombay, both British and Dutch commerce suffered severely from the Angria pirates.

In 1756 the fort of Vijayadrug was captured by Admiral Watson and Colonel (afterwards Lord) Clive, who commanded the land forces. Fifteen hundred prisoners were taken, eight English and three Dutch captains were rescued from the underground dungeons in the neighbourhood of the fortress, and treasure to the value of 12½ lakhs was divided among the captors. Vijayadrug was handed over to the Peshwā, under whom Manajī and Raghujī, the descendants of an illegitimate branch of the first Angria, held Kolāba fort as feudatories of Poona. On the downfall of the Peshwā's rule in 1818, the allegiance of the Angrias was transferred to the British. In 1840 the death of Kānhojī II, the last representative of the original family, afforded an opportunity to the Bombay Government to annex the forts of Suvarndrug, Vijayadrug, and Kolāba. The District has since enjoyed unbroken peace.

Kolāba District, with the exception of the *tāluka* of Alībāg, formed part of the dominions of the Peshwā, annexed by the British in 1818, on the overthrow of Bājī Rao. Alībāg lapsed ... Kolāba island has still an evil reputation with

mariners as the scene of many wrecks. Full nautical details regarding it are given in Taylor's *Sailing Directions*. Many houses in the town are built from the driftwood of vessels that have gone ashore. Ships are sometimes supposed to be intentionally wrecked here; the coast near Alībāg presents fair facilities for the escape of the crews.

Archaeology.

The most interesting remains in the District are the Buddhist caves at Pāl, Kol, KUDA, KONDĀNE, and Ambivli, and the Brāhmanical caves at ELEPHANTA. There are numerous churches and forts built by the Portuguese. The former strongholds of the Marāthās and the Angrias are imposing rock-built structures, the chief being RAIGARH, where Sivajī was crowned; Kolāba fort, the stronghold of Angria in the eighteenth century; Birvādi and Lingāna, built by Sivajī to secure his share of Kolāba against his neighbours; KHĀNDERI, and UNDERI.

The people.

The population of the District was returned at 524,269 in 1872 and 564,892 in 1881. It rose to 594,872 in 1891, and to 605,566 in 1901. The following table shows the distribution by *tālukas* according to the Census of 1901:—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Panvel	272	2	226	112,515	414	+ 6	6,386
Karjat	359	...	270	87,415	243	+ 2	4,253
Alībāg	193	3	177	83,647	433	+ 7	5,917
Pen	293	1	198	76,559	261	+ 3	4,524
Roha	203	1	133	47,780	235	+ 4	2,194
Māngaon	352	...	226	83,415	237	− 5	1,899
Mahād	459	1	246	114,235	249	− 4	3,178
District total	2,131	8	1,476	605,566	284	+ 2	28,351

The Alībāg and Panvel *tālukas* being naturally well placed and close to Bombay, the density of population is higher than in the rest of the District. The chief towns are URAN, PANVEL, PEN, and ALĪBĀG. Classified according to religion, Hindus form 94 per cent. and Musalmāns 5 per cent. of the total. The language of the District is Marāthī, which is spoken by more than 99 per cent. of the population.

Castes and occupations.

Among Hindus, the most important classes are the Brāhmans (24,000), chiefly Konkanasths (14,000), who own large gardens and palm groves along the coast. In the south

they are the landlords or *khots* of many villages, holding the position of middlemen between Government and the actual cultivators. As in Thāna, they and Prabhus (6,000) form an influential element in the population. The Vānīs (8,000) are traders. Agrīs (113,000) are tillers of salt land and makers of salt. Marāthās and Kunbīs (210,000) are rice cultivators. Kolīs (25,000) are principally fishermen and sailors. Bhandāris (6,000) are toddy-drawers, and Mālīs (14,000) are gardeners.

The hill tribes include the Thākurs and Kāthkaris; and the unsettled tribes, the Vaddars and the Vanjāras. The Thākurs (18,000) are small squat men, with hard irregular features, in some degree redeemed by an honest, kindly expression. They speak Marāthī, are harmless and hard-working, the women doing as much work as the men. When not employed on land cultivation, they find stray jobs or gather firewood for sale. The Kāthkaris (30,000) are cultivators, labourers, and firewood sellers, and were originally, as the name implies, cutch (*kāth*) boilers. Their women, tall and slim, singularly dirty and unkempt, are hard workers, and help the men by hawking head-loads of firewood. Kāthkaris, as a rule, are much darker and slimmer than the other forest tribes; they rank among the lowest of the low, their very touch being thought to defile. They eat every sort of flesh, except the cow and the monkey. They are poor, and much given to drink. In 1902 they were granted large areas of forest for *dalhi* cultivation, with the object of inducing them to follow more sober habits; but the object has not been wholly successful, owing to their ignorance of agriculture. The Vaddars (400) are rude, intemperate, and unsettled in their habits, gathering wherever building is going on. They are quarry-men, and make grindstones, handmills, and rolling-pins.

The Bani-Israil, or Indian Jews, numbering about 2,000, are chiefly found in the sea-board tracts. They are of two classes, the white and the black; the white, according to their own story, are descended from the original immigrants, while the black are descendants of converts or of women of the country. A considerable number of them enlist in the native army, and are esteemed as soldiers. They maintain the rite of circumcision, and faithfully accept the Old Testament. Their home language is Marāthī, but in the synagogues their scriptures are read in Hebrew. The Jews monopolize the work of oil-pressing to so great an extent that they are generally known as oilmen or *telis*. The late Dr. Wilson was of opinion that the Bani-Israil are descended from the 'lost tribes,' founding his belief upon

the fact that they possessed none of the Jewish names which date from after the Captivity, and none of the Jewish scriptures or writings after that date. Some of the Musalmāns are the descendants of converted Hindus; others trace their origin to foreign invaders; and a few are said to represent the early Arab traders and settlers. The last named form no distinct community, but consist of a few families that have not intermarried with Musalmāns of the country. The proportion of the population supported by agriculture is 72 per cent. The industrial class numbers 71,000 in all.

Christian missions. Of the 1,202 native Christians in 1901, more than 500 were Roman Catholics and 270 were Congregationalists. The former are found chiefly in the Karanja island of the Uran *petha*. As early as 1535 there were three churches in the island. The United Free Church Mission of Scotland and an American Mission have establishments in the District. The former maintains a high school, three primary schools for the depressed classes, and two girls' schools.

General agricultural conditions. There are four descriptions of soil. The alluvial tract is composed of various disintegrated rocks of the overlying trap formation, with a larger or smaller proportion of calcareous substance. This is by far the richest variety, and occupies the greater portion of the District. The slopes of the hills and plateaux are covered with soil formed by the disintegration of laterite and trap. Though fitted for the cultivation of some crops, such as *nāgli*, *vari*, and *san*-hemp, this soil, owing to its shallowness, soon becomes exhausted, and has to be left fallow for a few years. Clayey mould, resting upon trap, is called *khārapāt* or 'salt land.' Soil containing marine deposits, a large portion of sand, and other matter in concretion, lies immediately upon the sea-coast, and is favourable for garden crops. Rice is grown on saline as well as on sweet land. Between December and May the plot of ground chosen for a nursery is covered with cow-dung and brushwood; this is overlaid with thick grass, and earth is spread over the surface; the whole is then set on fire on the leeward side, generally towards morning, after the heavy dew has collected. In June, after the land has been sprinkled by a few showers, the nursery is sown before being ploughed. The plants shoot up after a few heavy falls of rain. In the beginning of July the seedlings are planted out, and in either October or November the reaping commences. On saline land no plough is used, and the soil is not manured. In the beginning of June, when the ground has become thoroughly saturated, the seed is

either sown in the mud, or, where the land is low and subject to the overflow of rain-water, the seed is wetted and placed in a heap until it sprouts and is then thrown on to the surface of the water. No transplanting takes place, but the crop is thinned when necessary. Should a field by any accident be flooded by salt water for three years in succession, the crops deteriorate.

Chief agricultural statistics and principal crops.

The District is mainly *ryotwāri*. *Khots* and *izāfatdārs* own 733 and 17 square miles respectively, while *inām* lands cover about 7 square miles. The chief statistics of cultivation in 1903–4 are shown below, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Panvel . .	272	146	1	52	58
Karjat . .	359	184	...	58	85
Alībāg . .	193	102	2	32	46
Pen . . .	292	122	...	41	104
Roha . .	204	98	...	32	63
Māngaon . .	358	219	...	83	45
Mahād . .	459	300	...	103	47
Total	*2,137	1,171	3	401	448

* Statistics are not available for 72 square miles of this area. These figures are based on the latest information.

Rice, ,the chief staple of the District, holds the first place with 391 square miles, or one-third of the total cultivated area. The two main kinds are red and white rice. Red rice is inferior, and is grown only in the salt low-lying lands near creeks. The poorer kinds of grain called *nāgli* (90 square miles), *vari* (69), *harik* (27), which form the chief food-supply of the people, are also grown in considerable quantities, especially on the flat tops and terraced sides of the hills. *Vāl* occupied 14 square miles and *udīd* 9 square miles. The latter is grown chiefly in Mahād, Māngaon, Karjat, and Roha. Of other pulses, *tur* and *mūg* are grown in Mahād, Māngaon, and Roha, and gram in Māngaon, Panvel, and Karjat. Sesamum, occupying 6 square miles, is raised mostly in Māngaon and Mahād. Niger-seed occupied 3 square miles. Cotton is now rarely grown, but was cultivated with considerable success during the great development of the production of Indian cotton at the close of the eighteenth century. *San*-hemp is grown in Māngaon. The betel-vine and the areca-nut palm are grown in many gardens. The special garden produce is pineapple, which is cultivated in large quantities in Chaul and Revadanda.

Improvements in agricultural practice.

The most interesting feature in the agriculture of Kolāba District, especially in Alībāg and Pen, is the large area of salt marsh and mangrove swamps reclaimed for the growth of rice. These tracts, situated along the banks of tidal creeks, are locally known as *khārapāt* or 'saline land.' Most of the *shilotris* or embankments, which save the land from tidal flooding, are said to have been built between 1755 and 1780 under the Angrias by men of position and capital, who undertook, on the grant of special terms, to make the embankments and to keep them in repair. In several cases the agreements were never fulfilled; and as the matter escaped notice, the foreshore, which should rightly have lapsed to Government, still remains in possession of the original grantees. For many years these reclamations were divided into rice-fields and salt-pans. The salt-pans were gradually closed between 1858 and 1872; and about two-thirds of the area formerly devoted to salt-making has now been brought under tillage. Each reclamation has two banks, an outer and an inner. In the outer banks are sluice-gates which are kept closed from October to June, but, as soon as the rains set in, are opened to allow the rain-water to escape. Two years after the embankment is completed, rice is sown in the reclaimed land, in order that the decayed straw may offer a resting-place and supply nourishment to grass seeds. Five years generally elapse before any crop is raised. More than 14,000 acres have been reclaimed in this way. The reclamation of saline land is encouraged by no revenue being levied for the first ten years, and full revenue only after thirty years. Under the Land Improvement and Agriculturists' Loans Acts advances have been made to cultivators amounting during the decade ending 1903-4 to 2 lakhs, of which Rs. 61,000 was advanced in 1896-7 and Rs. 33,000 and Rs. 37,000 in 1895-6 and 1899-1900 respectively.

Cattle, ponies, &c.

Except the Gujarāt bullocks kept by a few traders and large landowners, almost all the cattle of the District are of local breed. The Kolāba buffaloes are smaller, blacker, and smoother-skinned than those of Gujarāt. Sheep are usually imported from the Deccan. Goats are kept by some Musalmāns and lower-class Hindus, chiefly for milk. Ponies are brought from the Deccan by Dhangars and Vanjāras.

Irrigation.

Of the total area of cultivated land, only 3 square miles, or 0·5 per cent., were irrigated in 1903-4. The sources are wells and tanks, irrigating respectively [illegible]

there is much irrigation is along the west coast of Alībāg in a belt known as the Ashtāgar or 'eight plantations.' This tract includes the lands of eight villages covering 14 square miles, all of them with large areas of closely planted coco-nut gardens and orchards, irrigated from wells. There are numerous river dams. The wells, whose brackish water is especially suited to the growth of coco-nut palms, are fitted with Persian wheels or *rahāts*.

Forests.

Kolāba is fairly rich in forests, the teak and black-wood tracts being especially valuable. The Kolāba teak has been pronounced by competent judges the best grown in the Konkan, and inferior only to that of Malabar. Considerable damage has been done to the forests in past years by indiscriminate lopping, but the villagers are now commencing to realize the need of measures of conservancy. The value of the forests is increased by their proximity to Bombay, for they may be said to lie around the mouth of the harbour. The curved limbs are particularly adapted for the building of small vessels. The timber trade of the District has two main branches—an inland trade in wood for building purposes, and a coast trade in firewood and crooks for ship-building. The total area of forests in 1903–4 was about 458[1] square miles, of which 449 square miles are 'reserved,' chiefly in Pen and Nāgothana. The revenue in the same year was Rs. 83,750.

Except patches of mangrove along the river banks, the forests of Kolāba are all on the slopes and tops of hills. In the northern *tālukas*, Karjat has valuable Reserves in both the Western Ghāts and the Māther̄an-Tavli range; Panvel also has a considerable forest area, but much of it, except the teak-coppiced slopes of Mānikgarh, is of little value. Each of the central *tālukas*—Pen, Alībāg, and Roha—has large rich forests, while the less thickly wooded southern *tālukas* of Māngaon and Mahād have few Reserves. Teak is the most widely spread and the most valuable tree. Next come the mango, *sisu*, black-wood; *dhaura* (*Anogeissus latifolia*), once plentiful but now rather scarce; and the three principal ever-green hill-forest trees—*ain*, a valuable and common tree for house-building and tool-making, *jāmba*, and *kinjal* (*Terminalia paniculata*). The *apta* (*Bauhinia racemosa*), though of almost no use as timber, supplies leaves for *bīdīs* or country cigarettes. Nut-yielders include the *avla* (*Phyllanthus Emblica*), and the *hirda* (*Terminalia Chebula*); and

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liquor-yielders, the *mahuā*, the coco-nut, the palmyra, and the wild thick-stemmed palm. Minor forest produce consists of fruits, gums, and grass.

Mines and minerals.

The only mineral known to occur in Kolāba is iron, of which traces are found in laterite in different parts of the District. Aluminium occurs in the form of transcite in the hills around Mātherān. Good building stone is everywhere abundant; sand is plentiful in the rivers; and lime, both nodular and from shells, is burnt in small quantities.

Arts and manufactures.

Salt is extensively made by evaporation, and its production furnishes profitable employment in the fair season, when the cultivators are not engaged in agriculture. It is produced in large quantities in the Pen and Panvel *tālukas*, but the Pen trade is falling off. The District contains 155 salt-works, which produce nearly $2\frac{1}{2}$ million maunds of salt yearly. The weaving of silk, a relic of Portuguese times, is practised at Chaul; but the manufacture has declined since 1668, about which time a migration of weavers took place and the first street to receive them was built in Bombay. The extraction of oil from sesamum, the coco-nut, and the ground-nut, and the preparation of coco-nut fibre, also support many families. The manufacture of cart-wheels at Panvel is a large industry. The preparation of spirits, a business entirely in the hands of Pārsīs, is restricted to Uran, where there are numerous large distilleries.

Commerce and trade.

The principal trade centres of the District are Pen, Panvel, Karjat, Nāgothana, Revadanda, Roha, Goregaon, and Mahād. The chief articles of export are rice, salt, firewood, grass, timber, vegetables, fruits, and dried fish. The supply of vegetables of various sorts to Bombay City from the Alībāg and Panvel *tālukas* has increased on a remarkably large scale, and also the provision of fuel from Alībāg, Pen, and Roha. Grass is sent to Bombay in large quantities from Panvel and Pen. The imports consist of Malabar teak, brass pots from Poona and Nāsik, dates, grain, piece-goods, oil, butter, garlic, potatoes, turmeric, sugar, and molasses. Kolāba appears on the whole to be well supplied with means of transporting and exporting produce, a great portion being within easy reach of water-carriage. There are five seaports in the District. During the ten years ending 1902–3 the total value of seaborne trade averaged nearly 177 lakhs: namely, imports, about 31 lakhs; and exports, about 146 lakhs. In 1903–4 the imports were valued at 32 lakhs and the exports at 121 lakhs: total

at thirty places in the District. Vānīs from Mārwār and Gujarāt are the chief shopkeepers and money-lenders.

Communications. Railways and roads.

Kolāba is served by the Great Indian Peninsula Railway, which passes through the Karjat *tāluka* and the Khālāpur *petha*. In addition to a steamer ferry between Bombay, Dharamtar, and Ulva, there is direct steamer communication for passengers and freight between Bombay and the coast ports during the fair season. There are three main roads over the Bor, the Fitzgerald, and the Varandha *ghāts*, which connect the District with the Deccan and are available for traffic all the year round. The total length of metalled roads is 87 miles, and of unmetalled roads 160 miles. The Public Works department maintains 78 miles of the former and 85 miles of the latter. Avenues of trees are planted along 37 miles.

The largest bridge is one of 56 spans at Māngaon across the Nizāmpur-Kāl. At Nāgothana there is a masonry bridge, built in 1580 at a cost of 3 lakhs to facilitate the march of the Ahmadnagar king's troops into Chaul.

Famine.

The oldest scarcity of which local memory remains was the famine of 1803. The distress caused by want of rain and failure of crops was increased by the influx of starving people from the Deccan. Many children are said to have been sold for food. The price of rice rose to about one seer for a rupee. To relieve distress, entire remissions of revenue, during periods varying from eight months to two years, were granted. In 1817–8 there was a great scarcity of food, approaching to a famine. In 1848, in the old Sānkshi division, part of the rice crop on saline land was damaged by unusually high spring-tides. Remissions were granted to the amount of Rs. 37,750. In 1852 heavy rain damaged grain and other produce stacked in the fields. In 1854 an exceedingly good harvest was the outcome of a most favourable rainfall; but on November 1 a terrible hurricane completely destroyed every sort of field produce, whether standing or stacked, felling also coco-nut and areca-nut plantations. Remissions to the amount of more than Rs. 12,000 were granted. In 1871 there was a serious drought, particularly in the southern half of the District. In 1875–6 and in 1876–7 floods did much damage to the same tract. In 1878–9 the cold-season crops were damaged by locusts.

District subdivisions and staff.

The District is divided into seven *tālukas*—Alībāg, Pen, Panvel, Karjat, Roha, Māngaon, and Mahād—usually in charge of one member of the Indian Civil Service and a Deputy-Collector recruited in India. The Khālāpur, Uran or Karanja, ... in the Karjat, Panvel, and

Pen *tālukas*. The Collector is *ex-officio* Political Agent for the Janjīra State.

Civil and criminal justice.

The District is under the sessions division of Thāna, and the District Judge of Thāna disposes of civil appeals from Kolāba. During the monsoon the District Magistrate is invested with the powers of a Sessions Judge. There are five Subordinate Judges. The District Judge of Thāna acts as a court of appeal from the Subordinate Judges, who decide all original suits, except those in which Government is a party and applications under special Acts. There are twenty-five officers to administer criminal justice. The commonest form of crime is petty theft; but cases of homicide, hurt, and rioting occasionally occur and are usually ascribable in the first instance to drink, to which a large majority of the population are addicted. In years of scarcity dacoities are sometimes committed by immigrants from the Deccan; but as a rule this form of crime is unknown.

Land revenue administration.

Kolāba District was first included in Ratnāgiri and then in Thāna. In 1853 it was made a sub-collectorate and in 1869 a separate District. After annexation in 1818, the practice of paying revenue in grain was for some time continued; and during the period of depressions in prices, 1823–34, the District fared better than Thāna, where money payments were taken. From 1834 to 1854 the country improved, population increased, and reductions were made in the Government demand. Between 1854 and 1866 survey rates were introduced, and as this occurred in some parts before the rapid rise of prices in that period, the cultivators became extremely prosperous. Other parts were settled under the influence of high prices, and for a time their condition was depressed, but on the whole cultivation and revenue have both advanced. The revision survey settlement was carried out in the whole of the District between 1889 and 1904. The revision found an increase in the cultivated area of 0·3 per cent. and enhanced the total revenue from 11 to 13 lakhs. The average assessment per acre of 'dry' land is 5 annas, of rice land Rs. 4–11, and of garden land Rs. 9–8.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	7,28	10,03	13,90	13,58
Total revenue . .	10,44	20,79	23,14	24,63

A peculiarity of Kolāba District is the *khoti* tenure, which exists in 445 villages. The *khot* was originally a mere farmer of the revenue from year to year, but this right to act as middleman became hereditary, although there was no proprietary right. Under the settlement, the *khot*, as peasant proprietor, pays the survey rates, while the actual cultivators pay rent to the *khot*, not exceeding an excess of 50 per cent. above the Government demand, which constitutes the profit of the *khot*. Most of the present *khots* are representatives of the original farmers, but in some cases they have sold or mortgaged their rights.

Municipalities and local boards.

The District has seven municipalities: namely, ALĪBĀG, PEN, ROHA ASHTAMI, MAHĀD, PANVEL, URAN, and MĀTHERĀN. Outside their limits, local affairs are managed by the District board and seven *tāluka* boards. Their total receipts in 1903–4 were 1·33 lakhs and their expenditure 1·44 lakhs. The principal source of income is the land cess. More than Rs. 52,000 was devoted to the construction and maintenance of roads and buildings.

Police and jails.

The police force is under the control of the District Superintendent, assisted by one inspector. There are twelve police stations, with a total of 555 police: namely, 8 chief constables, 103 head constables, and 444 constables. There are nine subsidiary jails and one lock-up in the District, with accommodation for 230 prisoners. The daily average number of prisoners in 1904 was 24, of whom 2 were females.

Education.

Kolāba stands thirteenth among the 24 Districts of the Presidency in regard to the literacy of its population, of whom 4·7 per cent. (9 males and 0·3 females) could read and write in 1901. In 1881 the number of schools was 76, with 4,520 pupils. The pupils increased to 10,598 (including 1,117 in 68 private schools) in 1891, and further to 11,130 (including 1,256 in 85 private schools) in 1901. In 1903–4 there were 242 schools attended by 9,277 pupils, of whom 1,021 were girls. Of the 193 institutions classed as public, one is a high school, 188 are primary, and 4 middle schools; 139 are managed by the District board, 24 by municipalities, and 30 are aided. The total expenditure on education in 1903–4 was Rs. 87,000, of which Rs. 16,000 was derived from fees. Of the total, 83 per cent. was devoted to primary schools.

Hospitals and dispensaries.

The District contains two hospitals and six dispensaries, with accommodation for 52 persons. In these institutions 62,000 cases, including 178 in-patients, were treated in 1904, and

Rs. 18,500, of which nearly Rs. 9,300 was met from Local and municipal funds.

Vaccination. The number of persons successfully vaccinated in 1903-4 was 14,573, representing a proportion of 24 per 1,000 of population, which is slightly below the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. vi (1883); Major J. Francis, *Settlement Report of the Kolāba District* (1863).]

Panvel Tāluka.—Northern *tāluka* of Kolāba District, Bombay, lying between 18° 49′ and 19° 7′ N. and 72° 54′ and 73° 17′ E., with an area of 272 square miles. There are two towns, PANVEL (population, 10,152), the head-quarters, and URAN (12,237); and 226 villages. The population in 1901 was 112,515, compared with 107,855 in 1891, the increase being due to immigration and a higher birth-rate. Panvel is one of the most thickly populated *tālukas* in the District, with a density of 414 persons per square mile. The demand for land revenue in 1903-4 was 2·81 lakhs, and for cesses Rs. 22,000. Panvel includes the petty subdivision (*petha*) of Uran; along its eastern boundary stand the lofty Bāwa Malang, Mātherān, and Prabal ranges, while the Mānikgarh range bounds the south-east. It is traversed from north to south by the Karnāla range, which is almost denuded of forest, while on either side of the Uran creek lie extensive salt rice lands reclaimed from the sea. Numerous navigable streams and creeks, of which the Kālundri river is the most noteworthy, intersect the low-lying sea-board and afford easy water traffic. The climate, though damp and unhealthy for Europeans, is temperate, except in the hot season, at which time the water-supply becomes scanty. The annual rainfall averages 120 inches.

Karjat.—North-eastern *tāluka* of Kolāba District, Bombay, lying between 18° 45′ and 19° 8′ N. and 73° 11′ and 73° 33′ E., with an area of 359 square miles, including the petty subdivision (*petha*) of Khālāpur. There are 270 villages, the head-quarters being at Karjat. The population in 1901 was 87,415, compared with 85,288 in 1891. The density, 243 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was Rs. 1,61,000, and for cesses Rs. 10,000. Karjat may be described as a rough hilly tract, lying between the Western Ghāts and the hills of Mātherān. On its northern side glens and valleys diversify the surface; the lowlands are divided

into rice-fields, while the higher grounds are clothed with teak, *ain*, and black-wood. In the east the woodlands become a forest. The Ulhās and other streams which rise in the Western Ghāts flow through the *tāluka*, but become dry channels in the hot season. The rainfall is fairly plentiful, and failure of the rice crop rare. Drinking-water is scarce. The rice soil is black, and the upland soil reddish. The climate varies greatly with the season. In January and February the nights are extremely cold. The rainfall during the ten years ending 1903 averaged 130 inches.

Alībāg Tāluka.—North-western *tāluka* of Kolāba District, Bombay, lying between 18° 29′ and 18° 49′ N. and 72° 51′ and 73° 5′ E., with an area of 193 square miles. It contains three towns, ALĪBĀG (population, 6,055), the District and *tāluka* head-quarters, and CHAUL (6,517) being the largest; and 177 villages. The population in 1901 was 83,647, compared with 78,129 in 1891, the increase being attributed partly to an increased birth-rate, and partly to immigration from plague-affected tracts. The density, 433 persons per square mile, is the highest in the District. The demand for land revenue in 1903–4 was 2·52 lakhs, and for cesses Rs. 17,000. On the coast the climate is cooler than in other parts of the District. In the strip of salt rice land that borders the Ambā river the temperature is much higher. The average annual rainfall, 91 inches, is the lowest in the District. Alībāg is broken by an irregular range of hills which runs roughly north and south. In the west and east stretch gardens of palm-trees and rice lands.

Pen Tāluka.—North-eastern *tāluka* of Kolāba District, Bombay, lying between 18° 28′ and 18° 50′ N. and 73° and 73° 22′ E., with an area of 293 square miles, including the petty subdivision (*petha*) of Nāgothana. It contains one town, PEN (population, 9,229), the head-quarters; and 198 villages. The population in 1901 was 76,559, compared with 74,516 in 1891. The density, 261 persons per square mile, is below the District average. The demand for land revenue in 1903–4 was 1·22 lakhs, and for cesses Rs. 8,000. The chief river is the Ambā, of which the water is sweet and drinkable from June until September. The prevailing soils are reddish and black. A large area of tidal swamp is used for salt-pans. The climate is generally healthy. The annual rainfall averages 121 inches.

Roha Tāluka.—Central *tāluka* of Kolāba District, Bombay,

lying between 18° 17′ and 18° 32′ N. and 72° 57′ and 73° 20′ E., with an area of 203 square miles. It contains one town, ROHA (population, 6,252), the head-quarters; and 133 villages. The population in 1901 was 47,780, compared with 46,064 in 1891. The density, 235 persons per square mile, is much below the District average. The demand for land revenue in 1903–4 was 1·22 lakhs, and for cesses Rs. 8,000. Roha is for the most part hilly, and contains the rich valley of the Kundalika river. The rice lands are well watered during the rainy season, but in the cold and hot months the supply of drinking-water is defective. On the hill slopes and uplands the soil is a mixture of earth and broken trap. In the level parts the soil varies from reddish to yellow or black. During the ten years ending 1903 the rainfall averaged 127 inches. The eastern parts of Roha are much cut off from the sea-breeze, and therefore oppressive in the hot season, but parts of the west and south-west are more open.

Māngaon.—Eastern *tāluka* of Kolāba District, Bombay, lying between 18° 6′ and 18° 30′ N. and 73° 3′ and 73° 26′ E., with an area of 352 square miles. There are 226 villages, but no town; the head-quarters are at Māngaon village. The population in 1901 was 83,415, compared with 83,837 in 1891. The density, 237 persons per square mile, is much below the District average. The demand for land revenue in 1903–4 was 1·69 lakhs, and for cesses Rs. 10,000. The Māndād river flows through the north and west of the *tāluka*, and the Ghod through the centre. Except in the south, the country is broken by a number of detached hills. The rainfall during the ten years ending 1903 averaged 136 inches. Except in some of the western uplands, where the sea-breeze is felt, Māngaon is hot during the summer.

Mahād Tāluka.—Southern *tāluka* of Kolāba District, Bombay, lying between 17° 51′ and 18° 19′ N. and 73° 17′ and 73° 45′ E., with an area of 459 square miles. It contains one town, MAHĀD (population, 7,738), the head-quarters; and 246 villages. The population in 1901 was 114,235, compared with 119,183 in 1891, the decrease being mainly due to emigration. The density, 249 persons per square mile, is much below the District average. The demand for land revenue in 1903–4 was 1·56 lakhs, and for cesses Rs. 10,000. Mahād is of a wild and rugged character, the eye being arrested by spurs of the Mahābaleshwar hills, while in the north is the historic hill-fort of Raigarh. The Sāvitrī flows through the *tāluka*, watering rice and garden land. There is little or no sea-breeze, and

the changes of temperature are great. The annual rainfall averages 134 inches.

Alībāg Town.—Head-quarters of Kolāba District, Bombay, and of the *tāluka* of Alībāg, situated in 18° 39′ N. and 72° 53′ E., 19 miles south of Bombay. Population (1901), 6,055. Alībāg was named after a rich Muhammadan, who lived in the seventeenth century and constructed several wells and gardens in and near the town, many of which still exist[1]. On approaching the roadstead, the buildings of the town are hid from view by a belt of coco-nut trees. The only object of mark is the Kolāba Fort, on a small rocky island, about one-eighth of a mile from the shore, once a stronghold of the Marāthā admiral Angria (*see* KOLĀBA DISTRICT). Two miles out at sea, to the south-west of the Kolāba Fort, a round tower, about 60 feet high, marks a dangerous reef, covered at high water, on which several vessels have been wrecked. The town is supplied with drinking-water from a lake, constructed in 1876, distant a mile and a half to the north-east, on the road to Dharamtar. The gardens of Alībāg, which yield coco-nuts and some fine varieties of grafted mangoes, are among the best in the District. The value of the trade at the port of Alībāg during the year 1903–4 was: exports, 6·27 lakhs; and imports, 6·61 lakhs. The municipality, established in 1864, had an income during the decade ending 1901 averaging Rs. 9,600. In 1903–4 the income was Rs. 11,000. The magnetic branch of the Bombay Observatory has recently been moved to Alībāg. The town has a high school, belonging to the Free Church of Scotland Mission, with 228 pupils, and three other schools. Besides the usual revenue and judicial offices, there are a Subordinate Judge's court and a civil hospital.

Chaul (*Cheul*).—Town in the Alībāg *tāluka* of Kolāba District, Bombay, situated in 18° 34′ N. and 72° 55′ E., on the coast about 30 miles south of Bombay, and on the right bank of the Kundalika river or Roha creek. Population (1901), 6,517. Chaul is a place of great antiquity. Under the names of Champāvati and Revatikshetra, local Hindu traditions trace it to the times when Krishna reigned in Gujarāt. It seems probable that Chaul or Cheul is Ptolemy's (A. D. 150) headland and emporium of Symulla or Timulla; and it has a special interest, as Ptolemy mentions that he gained information about

[1] James Forbes (*Oriental Memoirs*) gives an interesting account of a visit to Alībāg in 1771. It then belonged to Raghujī Angria, who lived in the Kolāba Fort, but had his gardens and stables at Alībāg.

Western India from people who had come from Symulla to Alexandria. About a hundred years later (A.D. 247) it appears in the *Periplus* of the Erythraean Sea as Semulla, the first local mart south of Kalliena; and in 642 it is called Chimolo by Hiuen Tsiang. Chaul next appears under the names Saimur and Jaimur in the writings of the Arab travellers of the tenth, eleventh, and twelfth centuries. Early in the fourteenth century it is mentioned as one of the centres of Yādava power in the Konkan. The Russian traveller Athanasius Nikitin (1470) calls it Chivil. Thirty-five years later (1505) the Portuguese first appeared at Chaul. It was in Chaul harbour that a naval fight took place between the Portuguese and the Musalmāns in 1508, in which the Portuguese were defeated. In 1516 the Portuguese established a factory here, and five years later Chaul was burnt by the Bijāpur fleet. The Gujarāt fleet and some Turkish ships attacked it in 1528, but they were repulsed by the Portuguese and Ahmadnagar squadron. In 1529 it was plundered by the Gujarāt troops. In 1594 the Portuguese gained a brilliant victory over the Ahmadnagar troops at Chaul, but in 1600 it passed to the Mughals. In 1583 the Dutch traveller Jean Hugues de Linschot described Chaul as a fortified city with a good harbour, and famous for trade. It was then a great centre of manufactures, with very deft and hard-working craftsmen, who made a great number of chests and Chinese-like cabinets, very rich and well wrought, and beds and couches lacquered in all colours. There was also a great weaving industry in cotton and silk. As late as 1668 (Bruce's *Annals*) the weavers of Chaul are mentioned as making 5,000 pieces of 'taffaties' a year. In 1740 Chaul passed to the Marāthās. The insecurity of native rule at Chaul was of great advantage to Bombay. The silk-weavers and other skilled craftsmen of the town were induced to settle in Bombay; and their descendants of several castes—coppersmiths, weavers, and carpenters—are still known as Chaulis, thus preserving the name of their old home.

Upper and Lower Chaul, or, as they are more often called, Chaul and Revadanda, are among the prettiest and most interesting places in Kolāba District, and can be reached either by land from Alībāg or by sea. The beginning of the seven miles of land journey from Alībāg is made troublesome by the Alībāg creek, but beyond the creek most of the way lies through shady palm groves. The Portuguese ruins in Revadanda or Lower Chaul, the Musalmān mosque, baths, and castle of Rājkot in Old or Upper Chaul, and the Buddhist caves in the

south and south-west faces of the neighbouring hills are the chief objects of interest. Chaul also contains a temple of Sri Hingalāj, in which are images of Asāpuri and Chatursringi. The temple is said to be old. The town contains two schools.

Elephanta (or *Ghārāpuri*).—Island included in the Panvel *tāluka* of Kolāba District, Bombay, situated in 18° 58′ N. and 73° E., in Bombay harbour, about 6 miles from Bombay City and 4 from the shore of the mainland. The island measures from 4 to 4½ miles in circumference, and consists of two long hills separated by a narrow valley; the superficial area varies from 6 to 4 square miles according as the tide is high or low. On the west side it furnishes building stone of medium quality, which is at present being extensively quarried by the contractors to the Bombay Port Trust for use in the new docks. The island was named Elephanta by the Portuguese, from a large stone elephant which stood near the old landing-place on the south side of the island. This elephant was 13 feet 2 inches in length, and about 7 feet 4 inches high; but its head and neck dropped off in 1814, and subsequently the body sank down into a shapeless mass of stones, which were removed in 1864 to the Victoria Gardens in Bombay. Near the point where the two hills approach each other, and not far to the south-east of the Great Cave, once stood the stone statue of a horse, described by an early writer as being 'so lively, with such a colour and carriage, and the shape finisht with that Exactness that many have rather fancyed it, at a distance, a living Animal, than only a bare Representation.' This statue has disappeared. Except on the north-east and east, the hill-sides are covered with brushwood; in the hollows under the hill are clusters of mango, tamarind, and *karanja* trees. A broken line of palms stands out against the sky along the crest of the hill. Below is a belt of rice land. The foreshore is of sand and mud, bare and black, with a fringe of mangrove bushes. At one period, from the third to perhaps the tenth century, the island is supposed to have been the site of a city, and a place of religious resort. Some archaeologists would place here the Maurya city of Purī. The caves are the chief objects of interest; but in the rice-fields to the east of the northern or Shet landing-place brick and stone foundations, broken pillars, fallen statues of Siva, and other traces of an ancient city have been found. The landing-place is now on the north-west of the island.

The famous rock-caves are the resort of many visitors. Of these wonderful excavations, four are complete or nearly so;

a fifth is a large cave now much filled up, with only rough masses of stone left to support the roof; and a sixth is merely the beginning of the front of what seems to have been intended for a very small excavation—possibly two or three cells for recluses. The most important and most frequently visited of these Brāhmanic rock-temples is the Great Cave, which is situated in the western or larger of the two hills of the island at an elevation of about 250 feet above high-water level. The entrance is reached by a winding path about three-quarters of a mile in length from the landing-place. The cave faces the north, and is entirely hewn out of a hard compact variety of trap rock. From the front entrance to the back it measures about 130 feet, and its length from the east to the west entrance is the same. It does not, however, occupy the entire square of this area. What may be called the porticoes, or the three open sides, are only about 54 feet long and 16½ feet deep. Omitting these and the back aisle, immediately in front of three of the principal sculptured compartments, which is of about the same dimensions as each portico, the body of the cave may be considered as a square of about 91 feet each way, supported by six rows of columns, with six columns in each row, except at the corners, where the uniformity is broken on the west side to make room for the shrine, which occupies a space equal to that enclosed by four of the columns. There were originally 26 columns, with 16 half-columns; but 8 of the separate pillars have been destroyed, and others are much injured. As neither the floor nor the roof is perfectly horizontal, the pillars vary in height from 15 to 17 feet. The most striking of the sculptures is the famous colossal three-faced bust, or *trīmurti*, at the back of the cave, facing the entrance. This is a representation of Siva in his threefold character of Creator, Preserver, and Destroyer; and all the other sculptures relate to the same god, the cave being, like every other Hindu rock-temple of Western India, a Saiva one. The *trīmurti* is 17 feet 10 inches in height; and a line drawn round the three heads at the level of the eyes measures 22 feet 9 inches in length. The length of the middle face (Brahma's) is 4 feet 4 inches; those of the others (Vishnu and Rudra) 4 feet 1 inch and about 5 feet. In 1865 this unique bust was mutilated by some 'barbarian clothed in the garb of civilization,' who broke off a portion of the noses of two of the faces; and since then some of the other sculptures in the temple have been similarly treated, so that it has been found necessary to place a sergeant and two native policemen to protect the cave. The *trīmurti*

is guarded by two gigantic *dwārapālas* or 'doorkeepers' of rock, respectively 12 feet 9 inches and 13 feet 6 inches high; both figures are much defaced. The *lingam* chapel, on the right-hand side of the temple on entering, contains several *dwārapālas* and other figures; and two compartments on either side of the *trīmurti* are also ornamented with numerous sculptured groups. There are several other compartments in the Great Cave, all containing interesting sculptures. Further details will be found in the exhaustive account of Dr. Burgess (*The Rock Temples of Elephanta or Ghārāpuri*, Bombay, 1871), from which this article is chiefly condensed.

'The impression on the mind,' writes Dr. Burgess, 'may be imagined rather than described, when one enters the portico [of the Great Cave], passing from the glare and heat of tropical sunshine to the dim light and cool air of the temple, and realizes that he is under a vast roof of solid rock, that seems to be supported only by the ranges of massive columns that recede in the vistas on every side, some of which appear to have split or fallen under the tremendous superincumbent weight. And the feeling of strange uncertain awe that creeps over the mind is only prolonged when in the obscure light we begin to contemplate the gigantic stony figures ranged along the walls from which they seem to start, and from the living rock of which they are hewn.'

De Couto describes the stone of the mountain where the temples have been carved as of a grey colour. The same traveller, writing at the beginning of the seventeenth century, continues :—

'But the whole body inside, the pillars, the figures, and everything else, was formerly covered with a coat of lime mixed with bitumen and other compositions, that made the temple bright and very beautiful, the features and workmanship showing very distinct, so that neither in silver nor in wax could such figures be engraved with greater nicety, fineness, or perfection.'

At the present time there is no trace of this coating.

The Second Cave, which is situated a short distance to the south-east of the Great Cave, faces east-north-east, and is 109½ feet in length, including the chapel at the north end. The façade, which was nearly 80 feet in length, is completely destroyed; and the cave is so full of *débris* and so ruined by water that no proper estimate can now be formed of the appearance it originally represented. It contains at present only one sculptured group. At the south end of the portico of this cave is a large block of rock not hewn away, above

which is a hole through a thin partition of rock into one of the cells of the Third Cave. The proper entrance, however, is a little to the south. This cave is in an even more dilapidated condition than the Second.

The Fourth Cave, now known to the natives as 'Sītā Bai's Devala,' is situated on the other hill of the island, and about 100 feet above the level of the Great Cave. It is in better preservation than those last mentioned, and had formerly a beautiful gate with a marble porch of exquisite workmanship; but these have now disappeared.

Sufficient data do not exist to enable us to fix with precision the date of the Elephanta caves. Tradition attributes them variously to the Pāndavas, to a king of Kanara named Bānāsur, and to Alexander the Great; and many not less unreasonable conjectures have been hazarded regarding them. Mr. Fergusson concludes (for reasons for which the reader is referred to his *Rock-cut Temples of India*) that the Great Cave was excavated in the tenth century A.D.; but Dr. Burgess, while admitting that there are grounds for this conclusion, is inclined to attribute them to the latter part of the eighth or to the ninth century. No inscription is now to be found in the caves. It is hoped, however, that the date and name of the excavator may yet be learned from a stone, taken to Europe about 1540 by the Portuguese Viceroy Dom João de Castro, which may one day be rediscovered and deciphered.

The Great Cave is still used on Saiva festivals, and especially by Hindus of the Vānī caste; and at the Sivarātri, the greatest of the Saiva festivals, just before the first new moon falling after the middle of February, a religious fair is held here. The view from the front of the Great Cave is very beautiful; and from the site of an old bungalow, not far from the porch, a fine prospect is commanded of Bombay harbour, with Butcher Island in the foreground. The island had a population of 480 in 1901.

Karanja.—Peninsula, village, and petty subdivision (*petha*) in the Panvel *tāluka* of Kolāba District, Bombay, situated in 18° 51′ N. and 72° 57′ E., to the south-east of Bombay harbour, and about 6 miles south-east of the Carnac Bandar of Bombay. On a clear day the peninsula can be distinguished plainly, and apparently but a mile or two distant, from Bombay. It is 8 miles long and 4 broad. The peninsula consists of two rocky hills, between which stretch grass and rice lands, clothed with mango-trees and palms. The creek to the east is broken into several salt-pans, the officers connected with which are

stationed at the town of Uran close by. Besides its rice crop, which is of considerable value, the two special exports of Karanja Island are salt and liquor made from the *mahuā* or from the date-palm. The chief industry of the people, however, is fishing. The great area of the salt-works, about 3,000 acres, the shining white pans, regular boundaries, and heaps of glistening salt produce a curious effect to the eye. The salt-pans are not of recent date; reference is made to them in 1638, and in 1820 they are noted as having produced 20,000 tons of salt. During the year 1903–4 the salt export was about 2,000,000 maunds, and the revenue therefrom 29 lakhs. There are 19 distilleries at Mora on the island of Uran, all owned by Pārsīs. The *mahuā* flowers distilled in these are brought through Bombay from the Pānch Mahāls, and the annual revenue is about 35 lakhs. The water-supply is good, being derived from reservoirs, and from many ponds and wells which hold water for several months after the rains.

Karanja has passed under every form of rule and suffered every species of vicissitude. Under the Silāhāras, in the twelfth century, the island was prosperous, with many villages and gardens. It formed part of Bassein province, under the Portuguese, from 1530 to 1740; was fortified with two strongholds, one at Uran, the other on the top of its southern peak; and 100 armed men were maintained as garrison. At the present day may still be seen the ruins of Portuguese hermitages and churches. In 1535 the island was in charge of the Franciscans. In 1613 it was the scene of a great riot. In 1670 it was plundered by a Marāthā freebooter. In 1737 the Marāthās finally occupied the place, and held it until 1774, when the English took possession.

The most noteworthy ruins are on the summit of Dronagiri, the southern of the two hill peaks, including the Portuguese fort, guard-house, church, rock-temple, and reservoir. On the east face of Kharavli (the north hill peak) is a Buddhist rock-cut chapel; at Uran town, the old Portuguese fort and churches; in the village of Sheva, a ruined church, of which the broken walls of the graveyard are the only trace.

Karnāla (or Funnel Hill).—Hill fort in the Panvel *tāluka* of Kolāba District, Bombay, situated in 18° 53′ N. and 73° 7′ E., a few miles north-west of the Vegavati river, and 8 miles south of Panvel; elevation, 1,560 feet above sea-level. Population (1901), 1,327. Karnāla commands the high road between the Bor Pass and the Panvel and Apta rivers. The hill has an upper and lower fort. In the centre of the upper

fort is the 'funnel,' an almost inaccessible basalt pillar about 125 feet high, locally known as the Pāndu's tower. From the south-west of the hill can be seen the island-studded harbour of Bombay.

The fort was often taken and retaken during the turbulent period of Indian history. Under the Muhammadans, Karnāla was garrisoned from Gujarāt to overawe the North Konkan. The Ahmadnagar Sultān took it in 1540. The Portuguese captured it soon after, but gave it up for a ransom of Rs. 17,500 a year. Sivajī, the Marāthā leader, seized it in 1670, driving out the Mughals. On the death of Sivajī, Karnāla was re-captured by Aurangzeb's generals, and was held by the Mughals till at least 1735. Shortly afterwards it must have again come into the hands of the Marāthās, for in 1740 the Peshwā's power was established over the whole of the Konkan. In 1818 the fort was captured, and passed into British possession, together with the whole remaining territory held by the Peshwā. It is now in ruins.

Khānderi (or Kenery).—Small island in the Alībāg *tāluka* of Kolāba District, Bombay, situated in 18° 42′ N. and 72° 49′ E., near the entrance of Bombay harbour, 11 miles south of Bombay and 6 north-west of Alībāg. It lies 2½ miles from the Kolāba mainland and 1¾ miles from its sister island of UNDERI. Population (1901), 130. The island is a mile and a half long by half a mile broad. A lighthouse, which was built in 1867, stands on the highest part. It is an octagonal masonry tower 78 feet high on the centre of a flat-roofed house, the centre of the lantern being 1,581 feet above the level of high water. The light is a catadioptric of order 1, and is a single light with groups of flashes showing white with red sector. The period of revolution is ten seconds, and it is visible for 18 miles. A flagstaff 200 feet high stands north-east-by-north from the light tower.

In 1679 Sivajī, whom no advantage escaped, sent 300 soldiers and as many labourers, with arms and materials, to Khānderi, and began to raise breast-works at the landing-places. The island had never before been inhabited, and its only produce was fuel, which had formerly been sent to Bombay. When they heard of Sivajī's works on Khānderi, the English claimed it as part of Bombay, the Portuguese as an old settlement. Two attempts to turn out the Marāthās failed; and even after a naval battle in which the Bombay fleet of eight ships put to flight 50 sail, the English were not able to prevent the Marāthās strengthening their forces on Khānderi. The

Sīdī, as Mughal admiral, joined the English with a strong fleet; but the English commander found that the Sīdī did not mean to give up the island if he took it, and held aloof. The Sīdī continued to batter Khānderi and then suddenly fortified Underi. Daulat Khān, Sivajī's admiral, tried to stop this, bringing guns on the mainland opposite. But he was defeated and severely wounded, his small open boats not being able to withstand the Sīdī's stronger and larger vessels. For several years after this there were constant struggles between the Sīdī and the Marāthās for the possession of these islands. In 1693 Khāfi Khān mentions 'Kalaba and Gandiri' as the strongest of Sivajī's newly built forts on the sea-shore. In 1695 Gemelli Careri calls them 'Underin and Canderin,' two forts on the island and continent, a rock with some dwellings of Sivajī, who was at war with the Great Mughal and consequently in action against the Sīdī. About 1706 Mr. Strutt, Deputy-Governor of Bombay, describes Khānderi as strongly fortified by Angria and covered with houses. Khānderi was one of the ten forts and sixteen fortified places of less strength which, in 1713, Kānhojī Angria obtained on siding with Rājā Shāhu. In October, 1718, the English tried to take Khānderi and failed. This failure is said to have been due to the treachery of one Rāma Kāmāti who held a confidential post under Governor Boone; while a year later a Portuguese captain, who lay off one quarter of it with war-vessels to hinder the coming of relief, betrayed his trust, and let some boats pass in the night with provisions and ammunition which the island greatly needed. About 1740 it was settled between the English and the Sīdī that, if Khānderi was taken, it should be delivered with all its guns and stores to the English. The cession of Khānderi to the English was again proposed in 1755. It was not actually ceded until 1775 under the terms of the Treaty of Surat, and shortly after was taken back under the Treaty of Purandhar. Khānderi was then held by the Marāthās till it passed to the British in 1818 as part of the Peshwā's dominions.

Kondāne.—Village in the Karjat *tāluka* of Kolāba District, Bombay, situated in 18° 49′ N. and 73° 24′ E., about 4 miles south-east of Karjat on the south-eastern line of the Great Indian Peninsula Railway, and at the base of Rājmāchi hill. Population (1901), 158. Kondāne has a group of early Buddhist caves (250 B.C.–A.D. 100) of considerable interest. There are four caves, including the *chaitya* or shrine; and an inscription of them, attributed to the second century B.C., runs:

'Made by Balaka, the pupil of Kanha (Krishna).' The caves are fully described in the *Thāna District Gazetteer*.

Kuda.—Village in the Māngaon *tāluka* of Kolāba District, Bombay, situated in 18° 17′ N. and 73° 6′ E., 13 miles north-west of Māngaon and 2 miles east of the north-east arm of the Rājpuri creek. Population (1901), 481. Kuda has a group of twenty-six Buddhist caves and eleven cisterns (100 B.C.—A.D. 500), commanding a beautiful view of the creek and the distant hills. Five of the caves are *chaityas* or shrines, and many of them contain inscriptions recording the names of the donors. The sixth cave alone contains sculptures, which consist of two elephants on either side of the front court, and figures of Buddha carved on the front of the cave, on the pillars of the veranda, and on the back wall. In the rear of the main hall is a parapet ornamented with animal figures, while male and female figures with a curious headdress are depicted on the back wall at the point where it meets the parapet. The inscriptions number altogether twenty-four, and are fully described, with other features of the caves, in the *Thāna District Gazetteer*.

Mahād Town.—Head-quarters of the *tāluka* of the same name in Kolāba District, Bombay, situated in 18° 5′ N. and 73° 21′ E., on the right or north bank of the Sāvitrī river, 53 miles south-by-east of Alībāg. Population (1901), 7,738. At high water during spring-tides vessels drawing up to 9 feet, and canoes at all times of the tide, can pass a mile above the town.

The Buddhist caves of Pāle, Ptolemy's Balipatna (dating from A.D. 100), are 2 miles north-west of Mahād, and two other groups of caves are situated at Kol, a mile to the south. In 1538 De Castro mentions the place as having a large trade in wheat. It is not far from Raigarh, Sivajī's capital, and was often visited by the Marāthā chief. In 1771 James Forbes found Mahād a fortified and well-peopled town. At Mahād was concluded, in 1796, the treaty between Bājī Rao, Nāna Farnavīs, and the English, which placed Bājī Rao as Peshwā on the throne at Poona, Nāna becoming minister. In 1802 the Peshwā took refuge in Mahād, when Holkar seized his capital. During the last Marāthā War (1818) a force under Colonel Prother occupied Mahād without opposition.

Mahād has still a large sea-borne trade. The imports consist of salted and fresh fish from Malabar, Goa, and the Southern Konkan; and dates, sugar, iron, kerosene oil, and piece-goods from Bombay. The exports, most of them sent

to Bombay, are onions, garlic, potatoes, sugar, and myrabolams. Rice is carried inland through the Varandha pass to the Deccan. In fine weather steamers run up the Sāvitrī to Dāsgaon, 5 miles below Mahād. Land communication is by the main Konkan road. Mahād has been a municipality since 1866, and had an average income during the decade ending 1901 of Rs. 12,000. In 1903–4 the income was Rs. 15,000. The town contained a dispensary, a Subordinate Judge's court, a middle school, and four other schools.

Mātherān ('The wooded head,' or 'the mother's wood'). —Hill sanitarium in the Karjat *tāluka* of Kolāba District, Bombay, situated in 18° 58′ N. and 73° 16′ E., 2,460 feet above sea-level, about 30 miles east of Bombay city. The hill was explored in May, 1850, by Mr. Hugh Malet, of the Bombay Civil Service, and to him belongs the credit of making its advantages known. It is delightfully situated on an outlier of the Western Ghāts, commanding noble views of the plain which separates the mountain chain from the sea. The traveller proceeds from Bombay by the Great Indian Peninsula Railway to Neral station (54 miles), at the north-east foot of the hill, and thence to Mātherān (7 miles) by palanquin or pony. The road winds upwards through rich forests, and though broad enough for two ponies is unfit for carriages or carts. Mātherān has recently been connected with Neral station by a 2-ft. gauge mountain railway, similar to the Siliguri-Darjeeling line.

The summit, which has an area of about 8 square miles, consists of a main central block and two smaller side ridges or wings, thickly wooded and affording good riding ground. The central block has an average breadth of about half a mile, and stretches nearly north and south from the narrow ridge of Hart Point to the rounded bluff of Chauk in the south. It may be roughly divided into three parts: a north, middle, and south section. For about a mile from Hart Point to the Church plateau the northern section is thinly peopled, with only a broken line of houses separated by stretches of wood. On the Church plateau the houses stand closer together, and along the edge of the eastern cliff groups of huts and small shops cluster round the market-place. The slopes of the central portion are the part most thickly peopled, with rows of closely grouped houses stretching across nearly the whole breadth of the hill.

The peculiar charm of Mātherān is its Points. These form, as it were, rocky promontories jutting into mid-air, from which

the spectator looks down upon the valleys more than 2,000 feet below. In the morning the mist lies over the plains, and, as it gradually melts before the rising sun, discloses one by one the villages and fields which it has concealed beneath. The six leading Points or headlands are the Hart at the north and Chauk at the south of the central hill; Panorama Point at the north and Gārbat at the south of the east wing; and Porcupine Point at the north and Louisa at the south of the west wing. In addition to these, three other spots are known as the Artist, Sphinx, and Bartle Points. Of the several smaller bluffs the seven most important are: Alexander, Little Chauk, One Tree Hill, Danger, Echo, Landscape, and Monkey Points.

A very striking view is obtained, especially in the evening light, from Panorama Point. The level plain extends from the foot of the hill to the broken coast-line, about 40 miles off. The great city of Bombay, with its towers and shipping, lies under the sunset, and the ocean stretches beyond. Besides the beauty of the summit and of its views, a great charm in Mātherān is the plateau or terrace that almost encircles the hill from 200 to 300 feet below its crest. This belt has a rich soil, yearly freshened by mould washed down from the higher level. The hill-sides are scarred by several small streams, which, though dry during the greater part of the year, bear in their clean-swept rocky channels traces of the strength of their monsoon floods. The rides through the woods have a special freshness from the sea-breeze; and, although the elevation is not lofty enough to counteract the heats of summer, it suffices to render Mātherān a cool and salubrious retreat for the citizens of Bombay during the spring and autumn months.

In spite of the heavy rainfall, even the largest streams cease to flow soon after Christmas. Of eleven springs, only two—Harrison's on the east and Malet's on the west of the main hill-top—last throughout the year. The latter has never been known to fail, and supplies the only drinking-water used by European visitors. Mātherān is singularly free from malaria; there is no marsh on any part of the hill, every stream bed is a bare rock, and in almost all seasons the forest can be entered without risk. This freedom from malaria makes Mātherān a healthy place to most visitors. The returns for the ten years ending 1903 give an average annual rainfall of 251 inches. The thermometer readings show that, on an average, December and January are the coldest months, with

a mean maximum of 66°, and May and June the warmest, with a mean of 82°.

According to the Census of 1901, the total number of inhabitants, inclusive of the local hill-men, was 3,060, rising to 4,738 in the hot season. The majority of visitors to Mātherān are Pārsīs, of whom the greatest number come from Bombay. As a place of resort Mātherān has two seasons: after the rains in October and November, and from April 1 to the middle of June. The management of the station is entrusted to the Civil Surgeon, who, with the title of Superintendent, has within its limits the powers of a first-class Magistrate. Subject to the Collector of Kolāba, he has the entire management of the station, looking after the repairs of roads, settling the charges of palanquin-bearers, pony-keepers, and porters, and regulating the use of water, the conservancy arrangements, and the market. A municipality was established in 1905. The income is estimated at Rs. 15,000.

The chief public buildings are the post and telegraph offices, the Bairamjī Jījībhoy Hospital, the Superintendent's residence, the police lines, the resthouse, the hotels, market, library, gymkhāna, a church, and a Catholic chapel. There is one school. The leading Points on the hill-top may be comfortably seen in three rides or walks from one of the hotels. Excursions may also be made to Prabal Point, where there is a fort of the same name, which signifies 'mighty.' For this place the excursionist starts from Louisa Point, which overlooks a majestic cliff, whence in the rainy season a cataract 100 feet in width falls into the valley below by a single leap of 1,000 feet. Until within the last fifty years, Mātherān hill was inhabited solely by wild forest tribes of non-Aryan origin and predatory habits—Dhangars, Thākurs, and Kāthkaris. These still linger on the slopes and at the foot of the hills, but their little communities have considerably declined in numbers. Some of them may still be seen at the weekly Sunday bazar on the hill. Interesting accounts of Mātherān have been published by J. Y. Smith, M.D. (Edinburgh, 1871), and by Mrs. A. K. Oliver (Bombay, 1905).

Panvel Town.—Head-quarters of the *tāluka* of the same name in Kolāba District, Bombay, situated in 18° 59′ N. and 73° 7′ E., on the high road from Bombay to Poona. Population (1901), 10,152. The town was constituted a municipality in 1856, and had an average income during the decade ending 1901 of Rs. 23,400. In 1903–4 the income was Rs. 23,700. Panvel is the chief of four ports constituting the Panvel

customs division. In 1903-4 the trade of Panvel port was: imports, 7·23 lakhs; and exports, 15·15 lakhs. The sea trade of Panvel is entirely coasting. The chief imports are grain, fish, liquor, gunny-bags, *mahuā* flowers, coco-nuts, and timber. The chief exports are grain, *ghī*, firewood, cart-wheel and axle oil, and oilseeds. The chief local industry is the construction of cart-wheels, of which it is said that every cart from the Deccan carries away a pair. Brick-making on a large scale has been attempted, but the enterprise has on two occasions failed. Panvel port is mentioned as carrying on trade with Europe in 1570; and it probably rose to importance along with Bombay, as it is on the direct Bombay-Deccan route. The town contains a dispensary, a middle school, and four other schools.

Pārghāt.—Old pass or route across the Western Ghāts in Bombay, leading from Sātāra District to Kolāba. Two villages, Pār Pār or Pār Proper and Pet Pār, situated 5 miles west of Mahābaleshwar and immediately south of Pratāpgarh, give their name to and mark this old route into the Konkan, which goes straight over the hill below Bombay Point, and winds up a very steep incline with so many curves that it was named by the British the Corkscrew Pass. Passing through the two Pārs, the farther line of the Western Ghāts is descended by an equally steep path to the village of Pārghāt in Kolāba District. This route was maintained practicable for cattle and the artillery of the period from very early times, and toll stations for the levy of transit duties as well as for defence were stationed at various points. Afzal Khān, the Muhammadan general of the Sultān of Bijāpur, brought his forces by this pass to the famous interview at Pratāpgarh, where he was murdered by Sivajī. Until the building of the Kumbhārli road in 1864 and the Fitzgerald Pass road in 1876, the Pārghāt was the only highway leading from Sātāra to the Konkan.

Pen Town.—Head-quarters of the *tāluka* of the same name in Kolāba District, Bombay, situated in 18° 44′ N. and 73° 6′ E., 16 miles east-by-north of Alībāg. Population (1901), 9,229. It has been a municipality since 1865, having an average income during the decade ending 1901 of Rs. 14,000. In 1903-4 the income was Rs. 15,500. Pen is connected with the Deccan by the Konkan road and the Bor Pass. Steamers from Bombay call daily at Dharamtar ferry on the Ambā river, 5 miles distant; and cargo boats up to 50 tons burden come to Antora or Pen *bandar*, a mile and a half distant, at spring-tides. The neap tide port, Bāng *bandar*, is 4 miles below

Pen. In 1903-4 the exports were valued at 3·21 lakhs and the imports at 3·70 lakhs. Pen is one of the two ports forming the Sakse (Sānkshi) customs division. The water-works were constructed in 1876 at a cost of Rs. 28,000. Pen contains a dispensary, a middle school, and five other schools.

Raigarh (or 'The Royal Fort,' originally called Rairi, and known to the early European traders as 'the Gibraltar of the East').—Hill fort in the Mahād *tāluka* of Kolāba District, Bombay, situated in 18° 14′ N. and 73° 27′ E., 32 miles south-west of Poona. It stands on the Western Ghāts, and was regarded in the last century as one of the greatest strongholds of India. Its scarped sides and long top form a great wedge-shaped block, cut off from the Western Ghāts by a deep valley about a mile broad at the base and 2 miles across from crest to crest. The hill-top, 2,851 feet above sea-level, stretches about a mile and a half from east to west by a mile from north to south. On the west, south, and east, the hill-sides are so steep that, excepting the gateways in the west and south faces, there are no artificial defences. The north-west face is protected by a main line of masonry and two upper walls or portions of walls where the natural scarp is imperfect. Its size, strength, and its easy communication with the Deccan and with the sea must from early times have made Raigarh an important fortress. But its time of magnificence as the capital of a great sovereign was from 1664 to 1680, the last sixteen years of Sivajī's reign.

In the twelfth century Rairi was the seat of a family of petty Marāthā chiefs. In the fourteenth century these chiefs acknowledged the Vijayanagar princes as their overlords. About the middle of the fifteenth century, Alā-ud-dīn Shāh Bahmani II compelled the Rairi chief to pay tribute. In 1479 Rairi passed to the Nizām Shāhi Sultāns of Ahmadnagar, and was held by them till 1636. On the final conquest of Ahmadnagar, the Mughals made over Rairi to the Adil Shāhi Sultāns of Bijāpur. Under the name of Islāmgarh, it was then granted to the Sīdī of Janjīra, and garrisoned by a body of Marāthās. In 1648 Rairi fell into the hands of Sivajī, who in 1662, after diligent search, chose the hill for his capital, changing the name to Raigarh. The royal and public buildings are said to have numbered three hundred stone houses, including palaces, mansions, offices, a mint, granaries, magazines, quarters for a garrison of 2,000 men, a market nearly a mile in length, and a number of rock-cut and masonry cisterns. While the hill-top was being covered with these buildings, care was taken

to complete its defences. In 1664 Sivajī enriched Raigarh with the plunder of Surat, and made it the seat of his government. In the same year, after the death of his father Shāhjī, he assumed the title of Rājā, and struck coins in his own name. In 1674 Sivajī was crowned with much splendour as an independent prince at Raigarh, and died here six years afterwards in 1680. A description of the coronation, as reported by an English eyewitness, is given by Fryer. In 1690 Raigarh was taken by Aurangzeb; but having reverted to the Marāthās during the decay of the Muhammadan power, it was invested by a British force in April, 1818, and surrendered after a bombardment from the hill spur called Kāl-kai lasting fourteen days. A treasure of 5 lakhs in coin was discovered among the ruins of the fort.

Roha Town (known as Roha Ashtami).—Head-quarters of the *tāluka* of the same name in Kolāba District, Bombay, situated in 18° 26′ N. and 73° 7′ E., on the left bank of the Kundalika river, 18 miles from its mouth. Population (1901), 6,252. Roha is a great rice market for supplying Bombay City. The village of Ashtami, on the opposite bank of the river, is included within the municipal limits of Roha. Oxenden (1673) called it Esthemy. The municipality, established in 1866, had an average income during the decade ending 1901 of Rs. 6,200. In 1903–4 the income was Rs. 6,500. Ferry steamers run from Roha to Revadanda or Lower Chaul twice a day. The town contains a dispensary and seven schools.

Underi (or Henery).—Small island in the Alībāg *tāluka* of Kolāba District, Bombay, situated in 18° 42′ N. and 72° 51′ E., near the entrance of Bombay harbour, due south of the Prongs lighthouse, 1,200 yards from the mainland and opposite the village of Thal. This, with the sister island of KHĀNDERI, which is distant about a mile and a quarter to the south-west, forms one of the landmarks for vessels entering Bombay harbour. Underi is smaller and lower than Khānderi, and is nearly circular. Except a small cove in the north-east side where boats lie, it is surrounded by rocks.

The earliest known mention of Underi is by Fryer in 1674, who calls it 'Hunarey' and misplaces it, putting it to the west of 'Cunarey.' The island was fortified by Sīdī Kāsim in 1680, and remained in his hands till the close of the seventeenth century. After working with the English for some time in blockading Khānderi, where Daulat Khān (Sivajī's admiral) had recently established himself, Sīdī Kāsim suddenly took possession of Underi in January, 1680, and began to fortify

it. Two engagements followed between the Sīdī and the Marāthās. In the second fight Daulat Khān brought guns to bear from the mainland on Underi. After about a fortnight, Daulat Khān again came out with his whole fleet and engaged the Sīdī for four hours, but lost heavily. On August 1, 1680, Sambhājī, who had succeeded Sivajī (April, 1680), taking advantage of a dark night, landed two hundred men on Underi. They got within the works before they were discovered; but here the Sīdī attacked them and either took or killed the greater number. In 1761 Raghunāth Rao Peshwā granted Underi to the English; but the transfer never took place. The island was subsequently held on behalf of the Peshwās by the Angrias, who used the fort as a state prison. A hidden flight of steps led underground to a strong door, which gave entrance to a room 7 feet high and 12 feet wide, a loathsome dungeon swarming with vermin. About 1836, on suspicion of being concerned in a gang robbery, fifteen persons were confined in this hole. In four months, from want of light, air, and water, thirteen of the fifteen died raving mad. In 1840 Underi lapsed to the British Government; and, till 1858, when the survey settlement was introduced, it continued to be the head-quarters of a subdivision of 130 villages.

Uran.—Town in the Panvel *tāluka* of Kolāba District, Bombay, situated in 18° 52′ N. and 72° 56′ E., on the north of Karanja island, about 8 miles south-east of Bombay City. Population (1901), 12,237. The municipality, established in 1866, had an average income during the decade ending 1901 of Rs. 9,000. In 1903–4 the income was Rs. 10,000. Uran has a large customs-house and liquor shed at Mora, the port, 3 miles to the north; and nineteen distilleries supply Thāna and Kolāba Districts and Bombay City with liquor. In 1903–4 the exports were valued at 83·35 lakhs and the imports at 10·60 lakhs. The town contains a dispensary, a middle school, and three other schools.

Ratnāgiri District.—District in the Southern Division of the Bombay Presidency, lying between 15° 44′ and 18° 4′ N. and 73° 2′ and 73° 57′ E., with an area of 3,998 square miles. It is bounded on the north by the State of Janjīra and Kolāba District; on the east by Sātāra District and the State of Kolhāpur; on the south by the State of Sāvantvādi and the Portuguese Possessions of Goa; and on the west by the Arabian Sea.

Boundaries, configuration, and hill and river systems.

Ratnāgiri may be described generally as rocky and rugged. Near the coast it consists of bare elevated plateaux, intersected by numerous creeks and navigable rivers, flowing between steep

and lofty hills. These rivers have along their banks the chief seaports and almost all the fertile land of the District. Ten miles or so inland the country becomes more open, but a little farther it is occupied by spurs of the Western Ghāts. This range itself forms the continuous eastern boundary, running parallel to the coast, at a distance of from 30 to 45 miles. It varies in height from 2,000 to 3,000 feet, though some of the peaks attain an altitude of 4,000 feet.

Both above and below the main range the massive basaltic rocks that crown the Western Ghāts can, with little aid from art, be turned into nearly impregnable fortresses with a liberal supply of the finest water from the springs with which the hills abound. The hills are crossed by numerous passes, which, except the made roads, form the only means of communication with the Deccan. The crests of these passes command some of the most magnificent scenery in India. The lower hills are for the most part bare. Those deserving mention are: beginning from the north, the hog-backed Mandangarh, a ruined fort in Dāpoli commanding a view of Mahābaleshwar; south of this, also in Dāpoli, Pālgarh; farther south, in Khed, the three isolated hills of Mahīpatgarh, Sumārgarh, and Rasālgarh; passing south to Lānja in Rājāpur, Māchāl, a triangular hill, close to the old fort of Vishālgarh, ends in a broad plateau fit for a sanitarium.

The character of the streams that form the river system of Ratnāgiri varies little. They rise in the main range, or in the spurs of the Western Ghāts, and traversing the country through narrow deep-cut ravines enter the Arabian Sea after winding courses of seldom more than 40 miles. The general flow is from east to west, with sometimes a tendency to the south. The abruptness of their windings is a notable feature of the Ratnāgiri rivers. Though of comparatively small size and volume and ill-suited for irrigation, they are of great local value, being navigable for 20 miles or more and having estuaries affording safe anchorage for coasting craft.

The sea-board, about 160 miles in length, from Bānkot or Fort Victoria to a point 2 miles south of Redi Fort, is almost uniformly rocky and dangerous. It consists of a series of small bays and coves shut in between jutting headlands, and edged with sand of dazzling whiteness. At places the hills recede a little, leaving at their base a rich tract of rice-fields, with generally a strip of coco-nut gardens between them and the beach. At intervals of about 10 miles, a river or bay opens, sufficiently large to form a secure harbour for native craft; and the promon-

tories at the river mouths are almost invariably crowned with the ruins of an old fort. At Suvarndrug and Mālvan rocky islands stand out from the mainland, still preserving the remains of strong Marāthā fortifications. The larger rivers and creeks have deep water for 20 or 30 miles from the coast; and many of the most important towns are situated at their farthest navigable point, for in so rough a country the rivers form the best highways of trade.

The District contains no natural lakes and but few artificial reservoirs of any size, the most notable being those at Dhāmāpur, Varād, and Pendūr in Mālvan, and at Chiplūn in the Chiplūn *tāluka*.

Ratnāgiri is occupied almost entirely by the basaltic formation of the Deccan trap overlaid with laterite, except in the southernmost portion near Mālvan, where a substratum of gneiss and of Cuddapah beds appears from beneath the basalt and laterite. Tertiary beds containing fossil plants, the exact age of which is unknown, occur at Ratnāgiri. The remarkably rectilinear seacoast probably indicates a fault line of comparatively modern origin, and the numerous hot springs which occur in and along a line parallel with the coast may be connected with the formation of this fault. The line of springs runs half-way between the Western Ghāts and the sea, and seems to stretch both north and south of the District. There are similar springs near the towns of RĀJĀPUR, Khed, and Sangameshwar, and at the villages of Arvalli and Tural. The water of all of them appears to be strongly impregnated with sulphur. Geology.

The chief trees of the District are teak, *ain*, *kinjal*, catechu, *shīsham* (*Dalbergia Sissoo*), *mana* (*Lagerstroemia lanceolata*), *taman* (*Lagerstroemia Flos Reginae*), and bamboos. Casuarina has been planted in the Dāpoli *tāluka*; and plantations of this tree would probably thrive on the sandhills of the sea-board. From an economic point of view, the coco-nut palm is the most important tree in the District. Brāhmans and Marāthās either cultivate it themselves or rent it to Bhandāris to be tapped for *tāri*. Botany.

Game is scarce in Ratnāgiri District. Tigers, *sāmbar* deer, and bears are few, and have their haunts in the most inaccessible localities. Leopards are not uncommon; wild hog are plentiful, but owing to the nature of the ground hunting them on horseback is impossible. Small deer, antelope, hares, jackals, and foxes abound. Monkeys of the *langūr* species are to be seen about all towns and villages. The flying-fox (or fruit-bat) and the musk-rat are common everywhere. The bears are the usual Fauna.

Indian black or sloth species; they inhabit the upper slopes of the Ghāts, living mostly on their favourite food, the fruit of the wild fig-tree. Wolves are unknown, but packs of wild dogs have been seen. As regards its game-birds, Ratnāgiri is an indifferent sporting country; partridges and bustard are wanting, while quail are scarce. Duck, snipe, and plover are plentiful. Among birds of prey, the vulture, the falcon, the eagle, and the osprey are found. Owls are common, as also swallows, kingfishers, and parakeets. Snakes are abundant, of both venomous and harmless kinds. The python is stated to measure 10 to 20 feet, but the species is only occasionally met with. The rock snake, *dhāman* (*Ptyas mucosus*), and the brown tree snake are general. The cobra (*Naga tripudians*) is frequently killed in human habitations. Owing to its nocturnal habits, it is not often seen by daylight. The *fursa* (*Echis carinata*), identical with the *kappa* of Sind, is by far the most common of the venomous snakes found in the District, and is very dangerous. Ratnāgiri is well supplied with sea-fish, and in a less degree with fresh-water fish. Sharks are numerous, and whales are sometimes seen off the sea-board. Sardines swarm on the coast at certain seasons in such abundance as to be used for manure.

Climate and temperature.

The climate of the District, though moist and relaxing, is on the whole healthy. Fifteen miles from the coast extremes of cold and heat are experienced. Dāpoli is generally considered the healthiest station in the District, on account of its equable temperature, excellent drinking-water, and the fine open plain on which it stands. The mean annual temperature of Ratnāgiri town on the sea-coast is 83° and of Dāpoli, 57 miles from the coast, 87°. At the former town the temperature falls as low as 61° in January, and rises to 93° in May. From February to the middle of May strong gusty winds blow from the north-west, which then give place to the south-west monsoon.

Rainfall.

The rainfall is abundant and comparatively regular. The south-west monsoon usually breaks on the coast early in June, and the rains continue to the middle or end of October. The fall of rain averages 100 inches at Ratnāgiri, and is considerably heavier inland than on the coast. The maximum is 166 inches in the Mandangarh *petha*, and the minimum 95 inches in the Devgarh *tāluka*. The cyclone of 1871 swept up the coast with great violence and wrecked numerous small native craft and a steamer, besides causing much damage to houses. Another very violent storm occurred in 1879, in which 150 native vessels were wrecked, with a loss of over 200 lives and about 3 lakhs worth of cargo.

History. The Chiplūn and Kol caves show that between 200 B.C. and A.D. 50 northern Ratnāgiri had Buddhist settlements of some importance. The country subsequently passed under several Hindu dynasties, of whom the Chālukyas were the most powerful. In 1312 Ratnāgiri was overrun by the Muhammadans, who established themselves at Dābhol; but the rest of the country was practically unsubdued till 1470, when the Bahmani kings gained a complete ascendancy by the capture of Vishālgarh and Goa. About 1500 the whole of the Konkan south of the Sāvitrī came under Bijāpur rule; and, later, war with the Portuguese wrought grievous loss to Dābhol and other coast towns. The decline of the Portuguese power was accompanied by the rise of that of the Marāthās, who under Sivajī established themselves in Ratnāgiri (1648–80), defeating the Bijāpur armies, repelling the Mughals, and overcoming the Sīdīs and Portuguese. For some years after this the Sīdīs held possession of part of the District. The sucesses of the pirate Kānhojī Angria led to his appointment as admiral of the Marāthā fleet, and obtaining part of Ratnāgiri as his principality. In 1745 Tulājī Angria, one of his illegitimate sons, succeeded to the lands between Bānkot and Sāvantvādi, disavowed the Peshwā's authority, and seized and plundered all the ships he could master. The British, in conjunction with the Peshwā, in 1755 destroyed the piratical forts at Suvarndrug. The following year, after the destruction of the whole of Angria's fleet, Vijayadrug was taken. For these services Bānkot with nine villages was ceded to the British. In 1765 Mālvan and Reddi were reduced. The former was restored to the Rājā of Kolhāpur, and Reddi was given to the chief of Sāvantvādi. The wars between Kolhāpur and Sāvantvādi, carried on for twenty-three years with varying success, threw the country into great disorder, as each party in turn became supreme. They finally entered into agreements with the British Government, ceding Mālvan and Vengurla, and arrangements were made for the cession of the Peshwā's dominions in Ratnāgiri. But war breaking out in 1817, the country was occupied by a military force, and the forts were speedily reduced. A small detachment was landed at Ratnāgiri during the Mutiny, but no disturbance occurred. Since the third Burmese War, king Thībaw has been detained there as a state prisoner.

Archaeology. Ratnāgiri contains many forts, some standing on islands, others on headlands and the banks of rivers, while inland natural positions of advantage have been strengthened. The age of most of the forts is hard to fix. Some of them, as Mandangarh, may be as old as the Christian era; but of this the evidence is

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very slight. Many are said to have been built by Rājā Bhoj of Panhāla at the end of the twelfth century. But most are supposed to be the work of the Bijāpur kings in the sixteenth century, repaired and strengthened in the seventeenth by Sivajī. Like those of the North Konkan, the Ratnāgiri forts were neglected by the Peshwās. In 1818, except for the labour of bringing guns to bear on them, they were easily taken by the British. Nothing was done to destroy the fortifications; but except a few, all are now, from weather and the growth of creepers and wall trees, more or less ruined. There are said to be 365 forts in the District.

Ratnāgiri also contains other Hindu and Musalmān remains. The chief are the underground temple of Chandikābai; an old shrine of Sangameshwar, which is locally believed to date from Parasu Rāma's time; and the mosque of Dābhol, in a style similar to that of the Bijāpur mosques. In Khārepātan is the only Jain temple in the Southern Konkan. Copperplates of the Rāshtrakūta dynasty were found here. In the temple in Sindhudrug fort near Mālvan there is an effigy of Sivajī held in the greatest veneration. Prints of Sivajī's hands and feet which appear in the stone walls are held in reverence and protected by small temples. Monday is the chief day of Sivaji's worship, and the Kolhāpur chief sends turbans and other presents.

The people. The Census of 1872 disclosed a total population of 1,019,136 persons; that of 1881, 997,090; that of 1891, 1,105,926; and that of 1901, 1,167,927.

The following table shows the distribution of population according to the Census of 1901:—

Tāluka.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Dāpoli	500	2	243	154,628	309	— 0.2	6,999
Khed	392	...	146	95,594	244	— 5	3,262
Chiplūn	671	1	208	190,746	284	+ 3	9,500
Ratnāgiri	415	1	147	147,182	355	+ 8	7,263
Sangameshwar	576	...	190	129,412	225	+ 2	4,129
Rājāpur	616	1	181	153,808	250	+ 9	6,595
Devgarh	525	...	119	143,750	274	+ 12	8,280
Mālvan	238	1	58	107,944	454	+ 17	9,539
Vengurla	65	1	9	44,863	690	+ 14	5,879
District total	3,998	7	1,301	1,167,927	292	+ 6	61,446

The principal towns are Mālvan, Vengurla, Ratnāgiri (the head-quarters), and Chiplūn. Marāthī (including the

Konkanī dialect) is spoken by 99 per cent. of the population. Classified according to religion, Hindus form 92 per cent. of the total and Musalmāns 7 per cent.

Castes and occupations.

The Konkanasth or Chitpāvan Brāhmans (31,000) and the Karhādas (14,000) form the major portion of the Brāhman population (68,000). The Chitpāvans, so called from Chitapolan, the old name of Chiplūn, are acute and intelligent, and rose to great prominence in the days of Marāthā power, the Peshwā himself being a Chitpāvan Brāhman. The Karhādas are named after KARĀD in Sātāra District. Vānīs (36,000) are the most numerous of the trading castes; but the Bhātias, who have settled in the District within the last seventy years from Bombay and Cutch, are the most enterprising. Of husbandmen, the majority are Marāthās and Marāthā Kunbīs (287,000); Shindes (13,000), who are descendants of Brāhmans and female slaves; and Gaudas (11,000), who seem to be a class of Marāthās formerly holding the position of village headmen. The Bhandāris or palm-tappers (86,000) are chiefly found along the coast. They were formerly employed as fighting men, and are referred to in the early records of the British in Bombay as 'Bhandareens.' Of artisans, the chief are Telis or oil-pressers (20,000), Sutārs or carpenters (18,000), Sonārs or goldsmiths (16,000), and Kumhārs or potters (13,000). Guravs, wandering musicians (19,000), are found throughout the District. Gaulis (15,000) are cattle-keepers, and Gābits (19,000) mostly sea-fishers and sailors. The other sailors and fishermen are either Muhammadans or Hindus of the Bhandāri and Kolī castes. They are distinguished by their independent habits and character, and are in better circumstances than the agricultural population. Chamārs (12,000) are shoemakers and saddlers. Rājāpur Chamārs have a local reputation for their skill in making sandals. Mahārs (90,000) are found throughout the District. Of the Muhammadans, the most noticeable are those known in Bombay under the general name of Konkani Muhammadans, whose head-quarters are at Bānkot. They hold a few rich villages on the Sāvitrī river, and say that they are descended from Arab settlers at Dābhol, Chaul, and other towns in the Konkan. Some of them can give particulars of the immigration of their forefathers, and the features of many have a distinctly Arab cast.

About 76 per cent. of the population are supported by agriculture. The industrial classes, numbering in all 75,000, are mainly toddy-drawers (4,600), weavers (6,000), and fishermen including fish-dealers (44,000). Under British rule,

the Southern Konkan has always been the great recruiting ground of the Bombay army. To Ratnāgiri's clever, pushing upper classes, to its frugal, teachable middle classes, and to its sober, sturdy, and orderly lower classes Bombay City owes many of its ablest officials and lawyers, its earliest and cleverest factory workers, its most useful soldiers and constables, and its cheapest and most trusty supply of unskilled labour. In 1872 Bombay City contained 71,000 persons born in this District, while by 1901 the number had increased to 145,000. About the year 1864, before Bombay offered so large a market for labour, numbers went from Ratnāgiri to Mauritius; but this emigration has almost entirely ceased.

Christian missions.

Of the 4,929 native Christians enumerated in 1901, 4,232 were Roman Catholics, chiefly descended from the wholesale conversions made during the time of Portuguese domination. After the introduction of British rule the Scottish Missionary Society was the first to establish a mission, choosing Bānkot as their station, to which they soon after added Harnai. In 1830 the mission head-quarters were moved to Poona, and in 1834 the Ratnāgiri mission was abandoned. About twenty-five years later the American Presbyterian Board constituted Ratnāgiri a station of the Kolhāpur mission. At present Dāpoli is the head-quarters of the Church of England Mission, established in 1878, which maintains two orphanages (one for boys with 25 inmates and one for girls with 14), a high school with 159 pupils, and a vernacular school with 23 pupils. It also manages two vernacular schools for girls with 69 pupils. The American Presbyterian Mission, with its head-quarters at Ratnāgiri, maintains five schools with 200 pupils, including one for girls, an orphanage containing 32 boys and 32 girls, and a home for destitute widows with 13 inmates. It opened a branch at Vengurla in 1900. A considerable number of native Christians are found in Harnai, Mālvan, Vengurla, and other coast towns.

General agricultural conditions.

Fertile land is found along the banks of the rivers or salt-water creeks in the neighbourhood of the sea; but the soil is generally poor, consisting in great measure of a stiff ferruginous clay, often mixed with gravel. Neither wheat nor cotton is grown. There are several coco-nut plantations in the District, and *san*-hemp is grown by the fishermen for net-making. The better kinds of rice land produce also second crops of some description of pulse or vegetable. By far the greater proportion of the food-crops consist of inferior coarse grains, such as *harik*, *nāgli*, and *vari*, grown on *varkas* soil in the uplands.

The *varkas* lands may be divided into the more level parts, *mal*, where the plough can be used; and the steeper slopes, *dongri*, admitting of cultivation only by manual labour. The best of the poorer soils bear crops for five or six successive years, and then require a fallow of from three to twelve years.

Chief agricultural statistics and principal crops.

The District contains 521 square miles held on the *ryotwāri* system; *khots*, who rent villages from Government, occupy 269 square miles, while *inām* and *jāgīr* lands amount to 367 square miles. The chief statistics of cultivation in 1903-4 are shown below, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Dāpoli . .	499	62	1	26	0·7
Khed . . .	392	85	...	28	7·8
Chiplūn . .	671	19	...	7	...
Ratnāgiri . .	415	68	1	48	0·4
Sangameshwar .	569	53	...	25	4·7
Rājāpur . .	616	57	1	45	0·2
Devgarh . .	526	41	1	36	...*
Mālvan . .	238	135	8	65	1·0
Vengurla . .	65	40	3	18	...*
Total	3,991†	560	15	298	14·8

* The area covered by forests is about 10 acres in the Vengurla and Devgarh *tālukas*.

† Statistics are available for only 3,108 square miles of this area. The figures in the table are based on the latest information.

Rice, almost entirely of the 'sweet land' variety, occupies about 290 square miles. It is an important crop in the southern *tālukas*, especially in Mālvan. Next in importance come *nāgli*, *kodra*, and *vari*, occupying 48, 33, and 21 square miles respectively. These grains are eaten by the poorer classes. Of pulses, which occupy 24 square miles, the chief is *kulith* (16 square miles), grown in the southern portion of the District, especially in Mālvan. Oilseeds, chiefly niger-seed, occupy 12 square miles. Chillies are raised in small quantities as a 'dry-season' crop. Sugar-cane is cultivated in all parts of the District, except Khed and Chiplūn. *Tāg* or *san*-hemp (3 square miles) occupies a considerable area, and is used chiefly for making fishing-nets, twine, ropes, gunny, and paper. The remaining agricultural products are coco-nuts and areca-nuts, both of which are exported in considerable quantities.

Improvements in agricultural practice.

Since 1818 experiments have been undertaken with a view to introducing the cultivation of cotton into the District, but without success. The only real improvement of late years has been the conversion of considerable areas of inferior soil into rice and garden land. Under the Land Improvement and

Devgarh, Dābhol, Sangameshwar, Ratnāgiri, Rājāpur, Mālvan, and Vengurla are places of some trade and consequence; the rest are insignificant. The ports are grouped for customs purposes into seven divisions: Anjanvel, Bānkot, Jaitāpur, Mālvan, Ratnāgiri, Shiroda, and Vengurla. The total value of the sea-borne trade of the ports in the District amounted in 1876 to 23 lakhs, of which 9 lakhs represented exports and 14 lakhs imports; and in 1903-4 to 68 lakhs of exports and 99 lakhs of imports.

Communications.

In 1852 there were not even bullock-tracks from many villages to the nearest market towns, and the produce sent for sale was carried upon men's heads. Of late years many improvements have been made. In 1903-4 there were 479 miles of metalled and 790 miles of unmetalled roads in the District. Of these, 394 miles of metalled roads are maintained by the Public Works department, and the remainder by the local authorities. Avenues of trees are planted along 257 miles. The main road runs north and south, passing through the chief inland trade centres and crossing the different rivers above the limit of navigation. From it cart-roads lead to the four chief openings across the Ghāts. During the fair season the District is served by steamers of the Bombay Steam Navigation Company, while in the monsoon communication is maintained via the Amba *ghāt* and the Southern Mahratta Railway.

Since the beginning of British rule there has been no year of distress so severe and general as to amount to famine. Of only two of the older famines, those of 1790 and 1802-3, does any information remain. Both of these seem to have been felt all over the Konkan. In 1824 a very light rainfall was followed by a complete failure of crops in high grounds and a partial failure in low rice lands. In 1876 an insufficient rainfall caused a serious loss of crops, but not actual famine. Public health was bad, and there was considerable distress, Rs. 77,000 being spent on relief works. An unusual demand for labour sprang up in and near Bombay City; and it was estimated that at least 150,000 (double the usual number) of the poorer workers moved to Bombay for part of the fair season, and returned with savings enough to last them till the next harvest.

District subdivisions and staff.

The District is subdivided into 9 *tālukas*: VENGURLA, MĀLVAN, DEVGARH, RĀJĀPUR, RATNĀGIRI, SANGAMESHWAR, CHIPLŪN, KHED, and DĀPOLI. Chiplūn includes the petty subdivision (*petha*) of Guhāgar, and Dāpoli that of Mandan-

garh. The Collector usually has three Assistants, of whom one is a member of the Indian Civil Service.

Civil and criminal justice.

The District Judge, with whom are associated two Assistant Judges, sits at Ratnāgiri, and is assisted by ten Subordinate Judges, of whom two sit at Ratnāgiri, two at Chiplūn, and two at Rājāpur. The Khed *tāluka* alone has no Subordinate Judge. Original civil suits are heard by the Subordinate Judges, and appellate jurisdiction is exercised by the District Judge and his Assistants. There are 28 officers to administer criminal justice in the District. Crime is remarkably light; and such offences as occur are of a comparatively trifling nature and usually arise from disputes about land, which is very much subdivided and eagerly sought after.

In 1819 the South Konkan was formed into a separate District, with Bānkot as its head-quarters, which in 1822 were removed to Ratnāgiri, as being a more central and convenient place. In 1830 the three *tālukas* north of Bānkot were transferred to the North Konkan, and Ratnāgiri reduced to the rank of a sub-collectorate. But in 1832 it was again made a District.

Land revenue administration.

The land tenures of Ratnāgiri differ from those of the Presidency generally, in that there is a class of large landholders, called *khots*, in the position of middlemen between Government and the actual cultivators. The majority of the villages in the District are held on the *khoti* tenure, under which the *khot* makes himself responsible for the payment of the assessment. The *khot* is really a limited proprietor. He has the right to hold villages on payment in instalments of the lump assessment fixed by Government on all the village lands, the villages being liable to attachment if the amount is unpaid. He can lease lands in which there is no right of permanent occupancy on his own terms, and has a right to all lands lapsing by absence or failure of permanent occupants. The *khot's* tenants pay him such fixed amount, either in money or kind, as they may have agreed to pay; and in cases of default the *khot* receives assistance from Government in recovering his dues. Some of the *khoti* grants date back to the time of the Bijāpur kings, having been made to Muhammadans, Marāthās, and other Hindus alike. In 1829 the *khots* were well off, and many of them were men of capital, who laid out money in bringing new land under tillage. On the other hand, the tenants were deep in their debt and wholly at their mercy; and the first efforts of Government were directed to ascertain the extent of the relative rights of the *khots* and their tenants. In 1851 it was

found that the tenants were extremely impoverished, having no motive to improve their lands, and that a labour tax was exacted from them. It was decided to make a survey, record the rights of occupancy tenants, and obtain information upon which legislation could be based. The terms of the settlement were embodied in the Survey Act of 1865. The District was settled under its provisions against the strenuous opposition of the *khots*; and as money rates had been substituted for payments in kind, the change was disliked also by the people. In 1874 the discontent was so pronounced that a Commission was appointed to reinvestigate the subject and to endeavour to effect a compromise. A new settlement was carried out between 1877 and 1880 by personal inquiries before the whole of the assembled villagers. All extra cesses were abolished, and the relations between *khot* and tenant were placed upon a satisfactory footing. The Khoti Act (Bombay) I of 1880 legalized the settlements. Besides the *khot* tenures, three other special tenures are found in the District: *sheri thikāns*, or crown lands now leased for a term of thirty years; *katuban* lands, with fixed rent not liable to fluctuation; *gairdasti* lands, or lands formerly waste and unassessed but now leased until the new settlement. Considerable areas on the coast and along the banks of the larger creeks have been granted on reclamation leases. The revision survey settlement has been introduced into five out of the nine *tālukas*, resulting in a decrease of nearly one per cent. in the revenue. The average rate per acre on 'dry' land is Rs. 1–3 for *rabi* and 3 annas for *varkas*, on rice land Rs. 3-9, and on garden land Rs. 6–5.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	9,73	9,01	9,39	9,11
Total revenue . .	13,74	15,89	17,52	17,57

Munici-palities and local boards.

The District has four municipalities: namely, VENGURLA, RĀJĀPUR, RATNĀGIRI, and CHIPLŪN. Outside these, local affairs are managed by the District board and nine *tāluka* boards. The total income of these boards is about 1¼ lakhs, the chief source being the land cess. The expenditure includes Rs. 26,000 devoted to the construction and maintenance of roads and buildings.

Police and jails.

The District Superintendent of police is assisted by two inspectors. There are 15 police stations, with a total of 687 police: namely, 12 chief constables, 137 head constables, and

538 constables. A special police officer resides at Ratnāgiri in charge of the ex-king Thībaw of Burma. The District Jail at Ratnāgiri has accommodation for 228 prisoners. In addition, there are 11 subsidiary jails in the District, with accommodation for 156 prisoners. The total number of prisoners in these jails in 1904 was 123, of whom 7 were females.

Education. Ratnāgiri stands tenth among the twenty-four Districts of the Presidency in regard to the literacy of its population, of whom 5·2 per cent. (10·9 males and 0·3 females) could read and write in 1901. Education has made progress of late years. In 1855–6 there were only 20 schools attended by 2,403 pupils. The latter number rose to 9,585 in 1881, and to 20,937 in 1891, but fell to 19,733 in 1901. In 1903–4 there were in the District 484 schools attended by 22,855 pupils, of whom 1,536 were girls. Of 296 institutions classed as public, 2 are high schools, 13 middle schools, 278 primary schools, and 3 special schools, namely two technical schools at Dāpoli and Waknavli and the school of industry at Ratnāgiri. Of these institutions, one is maintained by Government, 168 are managed by District and 21 by municipal boards, 99 are aided and 7 unaided. The total expenditure on education in 1903–4 was 1·36 lakhs, of which Rs. 37,000 was met from fees, and Rs. 1,900 from Local funds. Of the total, 63 per cent. was devoted to primary schools.

Hospitals and dispensaries. The District contains one hospital, four dispensaries, one leper asylum, and five other private medical institutions, with accommodation for 148 in-patients. In 1904 the number of persons treated in these institutions was 36,500, of whom 483 were in-patients, and 1,104 operations were performed. The total expenditure was Rs. 17,000, of which Rs. 6,800 was met from Local and municipal funds. The District has a lunatic asylum with 111 inmates in 1904.

Vaccination. The number of persons successfully vaccinated in 1903–4 was 27,363, representing a proportion of 23 per 1,000 of population, which is slightly below the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. x (1880).]

Dāpoli Tāluka.—North-western *tāluka* of Ratnāgiri District, Bombay, lying between 17° 35′ and 18° 4′ N. and 73° 2′ and 73° 22′ E., with an area of 500 square miles, including the petty subdivision (*petha*) of Mandangarh. There are two towns, DĀPOLI (population, 2,867), the head-quarters, and HARNAI (6,245); and 243 villages. The population in 1901

was 154,628, compared with 154,991 in 1891. The density, 309 persons per square mile, is a little above the District average. The demand for land revenue in 1903-4 was 1·34 lakhs, and for cesses Rs. 9,000. The sea-board of Dāpoli, stretching for 30 miles, has the characteristics of other parts of the Konkan coast. Bluff headlands rise at the mouths of the chief rivers, and the coast-line is indented with small and sandy bays. The coast villages, dotted over the low belts of sand lying between the sea and the cliffs, are thickly peopled, and are concealed in dense groves of palms. Along the coast lies Harnai, a good harbourage from northerly winds, and opposite Harnai is the island fortress of Suvarndrug. Inland, the aspect of the *tāluka* is bleak and rugged. Boulders of laterite crop out over the bare plateaux of this region, and lie scattered in the innumerable watercourses of long-dried-up streams. Eastward the prospect improves. The villages are shaded by clumps of jack and mango trees; teak grows in some of the more sheltered ravines; and the river banks are covered with brushwood. The climate on the whole is temperate and healthy. The sea-breeze is felt in all parts. A small portion of alluvial soil is found on the banks of the rivers and on the flats formed by deposits at their estuaries. A good deal of salt marsh and tidal swamp has been turned into fertile gardens and productive rice-fields. The annual rainfall is heavy, averaging 131 inches at Dāpoli and 166 inches at Mandangarh. The latter is the highest figure for the whole District.

Khed Tāluka.—North-eastern *tāluka* of Ratnāgiri District, Bombay, lying between 17° 33′ and 17° 54′ N. and 73° 20′ and 73° 42′ E., with an area of 392 square miles. It contains 146 villages, including KHED (population, 5,053), the head-quarters; but no town. The population in 1901 was 95,594, compared with 100,550 in 1891. The decrease is ascribed to a virulent cholera epidemic and considerable emigration during the fair season. The density, 244 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was Rs. 86,000, and cesses Rs. 6,000. The *tāluka* consists of a rugged and hilly surface, with patches of poor land. The north-west is much broken by ravines; in the north-east are three hills, Mahīpatgarh, Sumārgarh, and Rasālgarh, detached from the Western Ghāts by the deep valley of the Jagbudi. The principal passes across the Ghāts are the Hātlot and the Amboli, the latter passable by pack-bullocks. The village sites are pro-

tected by shade-giving trees; near the villages are numerous sacred groves. The Jagbudi river is navigable by small craft as far as Khed. The greater part of the *tāluka* lies beyond the influence of the sea-breeze, and is consequently very hot during March, April, and May. The annual rainfall is heavy, averaging about 143 inches.

Chiplūn Tāluka.—Central *tāluka* of Ratnāgiri District, Bombay, lying between 17° 12′ and 17° 37′ N. and 73° 8′ and 73° 45′ E., with an area of 671 square miles, including the petty subdivision (*petha*) of Guhāgar. It contains one town, CHIPLŪN (population, 7,886), the head-quarters; and 208 villages. The population in 1901 was 190,746, compared with 185,341 in 1891. The density, 284 persons per square mile, is slightly below the District average. The demand for land revenue in 1903–4 was 1·46 lakhs, and for cesses Rs. 10,000. The *tāluka* stretches from the coast inland to the watershed of the Western Ghāts, and is throughout more or less hilly and rugged. The sea-board, with the exception of an open sandy roadstead 5 miles long extending on each side of the village of Guhāgar, is broken and irregular. Close to the shore rise a series of high laterite plateaux, which stretch 10 miles inland, where they are succeeded by a belt of lower undulating land; but on meeting the spurs and ravines thrown out by the great mountain chain of the Western Ghāts the country becomes very rugged and precipitous. The only rivers of importance are the Vāshishti in the north and the Shāstri in the south, both of which are tidal for a distance of about 25 miles from their mouths, and are navigable within these limits by boats of moderate size. The annual rainfall averages 141 inches.

Ratnāgiri Tāluka.—Central *tāluka* of Ratnāgiri District, Bombay, lying between 15° 44′ and 17° 17′ N. and 73° 12′ and 73° 33′ E., with an area of 415 square miles. It contains one town, RATNĀGIRI (population, 16,094), the District and *tāluka* head-quarters; and 147 villages. The population in 1901 was 147,182, compared with 136,840 in 1891. The increase is normal; but the density, 355 persons per square mile, largely exceeds the District average. The demand for land revenue in 1903–4 was Rs. 87,000, and for cesses Rs. 6,000. The coast-line is bold, and indented with numerous creeks. Alluvial deposits are found on the banks and at the estuaries of the creeks. The plateaux and hills consist entirely of laterite. The climate is moist and relaxing, and the annual rainfall averages 96 inches.

Sangameshwar Tāluka.—Inland *tāluka* of Ratnāgiri District, Bombay, lying between 16° 49′ and 17° 20′ N. and 73° 25′ and 73° 50′ E., with an area of 576 square miles. There are 190 villages, but no town; the head-quarters since 1878 have been at the village of DEVRUKH. The population in 1901 was 129,412, compared with 126,700 in 1891. The density, 225 persons per square mile, is below the District average. The demand for land revenue in 1903–4 was Rs. 89,000, and for cesses Rs. 6,000. The chief river is the Shāstri, which cuts the *tāluka* nearly in half. North of this river, the country is hilly and becomes rugged at the foot of the Western Ghāts, which are crossed by three passes. A fair amount of alluvial soil is found in the valleys, yielding good crops of rice and pulse. Almost all the rest of the *tāluka* is crumbled trap. Several hot springs of varying temperature occur. The annual rainfall is heavy, averaging 143 inches.

Rājāpur Tāluka.—Central *tāluka* of Ratnāgiri District, Bombay, lying between 16° 30′ and 16° 55′ N. and 73° 18′ and 73° 52′ E., with an area of 616 square miles. It contains one town, RĀJĀPUR (population, 5,178), the head-quarters; and 181 villages. The population in 1901 was 153,808, compared with 140,941 in 1891. The density, 250 persons per square mile, is much below the District average. The demand for land revenue in 1903–4 was Rs. 96,000, and for cesses Rs. 7,000. The coast line stretches from the Vijayadurg creek to the Machkandi river, a distance of 20 miles. The soil is poor, except in the valleys. The principal passes across the Western Ghāts are the Anaskura and Kājirda. The Vijayadurg creek has no bar, and is navigable throughout its course in the *tāluka*. The annual rainfall averages about 131 inches.

Devgarh Tāluka.—Southern *tāluka* of Ratnāgiri District, Bombay, lying between 16° 11′ and 16° 35′ N. and 73° 19′ and 73° 57′ E., with an area of 525 square miles. There are 119 villages, but no town. The population in 1901 was 143,750, compared with 128,708 in 1891. The increase of population is attributed partly to immunity from plague, and partly to the fact that at the date of the Census many mills in Bombay were closed and the hands had returned to their homes in Ratnāgiri. The density, 274 persons per square mile, is slightly below the District average. The demand for land revenue in 1903–4 was one lakh, and for cesses Rs. 6,000. The *tāluka*, about 26 miles long and 32 miles broad on an

average, stretches from the sea-coast to the watershed of the Western Ghāts. At the north-west corner the rocky headland of Vijayadurg juts out into the sea. The coast-line from Vijayadurg to the mouth of the Achra river, the southern point, is fairly regular, although intersected by creeks and small river estuaries. In the sandy coves along the coast lie fishing villages picturesquely secluded in groves of palms. The only pass into the Deccan of any importance is the Phonda route. The water-supply is fair for 20 miles inland. The soil is poor. The Vijayadurg creek is navigable for vessels drawing 7 feet of water as far as Vāghotan. Canoes can paddle up to Khārepātan, 24 miles from the sea. The annual rainfall, averaging 80 inches, is the lightest in the District.

Mālvan Tāluka.—Southern *tāluka* of Ratnāgiri District, Bombay, lying between 16° 1′ and 16° 19′ N. and 73° 27′ and 73° 41′ E., with an area of 238 square miles. It contains one town, MĀLVAN (population, 19,626), the head-quarters; and 58 villages, including MASŪRA (8,855) and PENDUR (5,364). The population in 1901 was 107,944, compared with 92,437 in 1891. The increase is due to the presence of large numbers of Bombay mill-hands, whose homes are in Mālvan, and whom the closing of mills in 1901 had forced to return to their villages. The density, 454 persons per square mile, is much above the District average. The demand for land revenue in 1903–4 was Rs. 89,000, and for cesses Rs. 6,000. The *tāluka* forms a considerable stretch of the Ratnāgiri sea-board, intersected by the Kolamb and Kālāvali creeks. The interior is a series of rugged hills and rich valleys. Rice and sugar-cane are grown along the Kārli and Kālāvali creeks. The headland of Rājkot at Mālvan offers a secure harbour to small steamers and country craft which anchor in Mālvan Bay, but the bay is dangerous to vessels without a pilot. The Kārli and Kālāvali creeks are navigable by small craft for 20 miles. The chief ports on the sea-board are Devgarh, Achra, and Mālvan, forming the Mālvan customs division. The supply of water for drinking and other purposes is abundant. The climate is on the whole healthy. The annual rainfall averages 88 inches.

Vengurla Tāluka.—Southernmost *tāluka* of Ratnāgiri District, Bombay, lying between 15° 44′ and 16° 1′ N. and 73° 30′ and 73° 42′ E., with an area of 65 square miles. It contains one town, VENGURLA (population, 19,018), the head-quarters; and 9 villages. The population in 1901 was 44,863, compared with 39,418 in 1891. The increase is attributable to a growth in Vengurla town, which has been fortunately free

from plague. The density, 690 persons per square mile, is the highest in the District. The demand for land revenue in 1903–4 was Rs. 41,300, and for cesses Rs. 3,000. Coco-nut and areca-nut palms flourish on the hill-sides. The valley soil is generally rich. Water is abundant, and the annual rainfall averages nearly 105 inches.

Bānkot (or Fort Victoria).—Village and old fort in the Dāpoli *tāluka* of Ratnāgiri District, Bombay, situated in 17° 59′ N. and 73° 3′ E., at the mouth of the Sāvitrī river, 73 miles south-east of Bombay. Population (1901), 276. In the beginning of the eighteenth century 'Bancoote' was a pirate nest of the Marāthā chief Angria. It was ceded by the Marāthās in exchange for the conquered fortress of Gheria in 1756, and thus became the first British possession on the mainland of Western India. It was renamed Fort Victoria, and was highly valued as supplying Bombay with provisions, and also as affording the inhabitants a change of air and scene. James Forbes (*Oriental Memoirs*) visited it in 1771. Bānkot lies at the foot of a rocky headland in the extreme north of the District. The river is navigable by vessels of 16 feet draught 18 miles to Mahāpral, and by vessels drawing 7 feet 10 miles farther to Mahād in Kolāba District. Until 1822 Bānkot was the chief town of Ratnāgiri District. It is now little more than a large fishing village with no manufactures. Coasting steamers call daily during the fair season, but the port is closed in the south-west monsoon. The value of the imports and exports is trifling. Bānkot contains seven schools, attended by 100 boys and 22 girls.

Chiplūn Town (originally Chitapolan).—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 17° 32′ N. and 73° 31′ E., 108 miles south-east of Bombay and about 25 miles from the coast, on the south bank of the Vāshishti river, which is navigable by boats of nearly 2 tons. Population (1901), 7,886. Chiplūn is a prosperous commercial town, near the head of the Kumbhārli pass, one of the easiest routes into the Deccan from the sea-board. It contains good roads; an efficient conservancy establishment is maintained, and the streets are lighted. A reservoir, formed by a masonry dam thrown across the bed of a small river 3 miles south of the town, provides an ample water-supply. The municipality dates from 1876, and had an average income during the decade ending 1901 of Rs. 13,400. In 1903–4 the income was Rs. 12,500. About a quarter of a mile south of the town are some Buddhist excavations and a fort with a

reservoir on a detached hill commanding the creek. Chiplūn is the home of the Konkanasth or Chitpāvan Brāhmans, the word Chitpāvan being explained as a corruption of the old name, Chitapolan. The town contains a Subordinate Judge's court, a dispensary, and five schools, including two Anglo-vernacular schools and a girls' school, attended by 328 boys and 31 girls.

Dābhol.—Port in the Dāpoli *tāluka* of Ratnāgiri District, Bombay, situated in 17° 35′ N. and 73° 10′ E. Population (1901), 4,415. Dābhol was a place of considerable historical importance, and the principal port of the South Konkan in the fourteenth, fifteenth, and sixteenth centuries, carrying on an extensive trade with Persia and the Red Sea ports. It is also noted for its beautiful mosque, which is the only specimen of pure Saracenic architecture in the Southern Konkan. The underground temple of Chandikābai is said to have been built in A. D. 550–78. Dābhol was the capital of a province of the Bijāpur kingdom under Yūsuf Adīl Shāh, which extended from the Sāvitrī river to Devgarh, including nearly the whole of the present District of Ratnāgiri. The name is derived alternatively from Dābhileshwar, a name of Siva, or from Dābhya, a 'god-frequented forest.' At present Dābhol is the port for the maritime trade, while the business of Chitpur is confined to the forwarding of goods. In 1903–4 the exports were valued at 15 lakhs and the imports at 17 lakhs. The port has three lighthouses, of which one on Polkeshwar Point shows a light visible for 15 miles. Dābhol contains one school, attended by 192 boys and 12 girls.

Dāpoli Town.—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 17° 46′ N. and 73° 11′ E., about 5 miles from the sea. Population (1901), 2,867. The municipality, established in 1880, has now been abolished, its place being taken by a special committee. In 1903–4 the income was Rs. 3,700. In 1818 Dāpoli was constituted the military station of the Southern Konkan. In 1840 the regular troops were withdrawn, but a veteran battalion was retained till 1857. After that date the cantonment was broken up and the town declined in importance. A picturesque old English church stands within the site of the old camp, and there are two European graveyards dating from 1818 and 1821. The town contains a Subordinate Judge's court, a dispensary, an S.P.G. Mission school, and a technical school.

Devgarh Village.—Port in the Devgarh *tāluka* of Ratnāgiri District, Bombay, situated in 16° 23′ N. and 73° 22′ E.,

180 miles from Bombay. Population (1901), 1,761. It has a safe and beautiful landlocked harbour, at all times perfectly smooth. The average depth of water is 18 feet. The entrance, only three cables in width, lies close to the fort point. The position is said to have been fortified by the Angrias, a Marāthā pirate race, early in the eighteenth century, and was captured in 1818 by Colonel Imlack. In 1875 the head-quarters of the *tāluka* were moved here from Khārepātan. In 1903-4 the trade of the port amounted to 3·7 lakhs, of which 2 lakhs was imports and 1·7 lakhs exports. Devgarh contains a Subordinate Judge's court and an Anglo-vernacular school.

Devrukh.—Head-quarters of the Sangameshwar *tāluka* of Ratnāgiri District, Bombay, situated in 17° 4′ N. and 73° 37′ E. Population (1901), 3,892. The place, which enjoys a good climate and a plentiful water-supply, contains the ordinary revenue offices and an English school.

Harnai.—Port in the Dāpoli *tāluka* of Ratnāgiri District, Bombay, situated in 17° 49′ N. and 73° 6′ E., 56 miles north-west of Ratnāgiri town. Population (1901), 6,245, including about 400 Christians. The port lies in a small rocky bay, and is a shelter for coasting craft in north-west winds. In 1818 Harnai was a station for British troops. The ordinary trade is small, but there is a brisk fish market from September to June. In 1903-4 the exports were valued at 2 lakhs and the imports at 5 lakhs. The island fortress of Suvarndrug, the 'golden fortress' or Janjīra, is a little to the north of the port. This was built by the Bijāpur Sultāns in the fifteenth century, and strengthened by Sivajī in 1660. In 1698 it was a station of Kānhojī Angria's fleet, and in 1713 it was formally made over to him by Rājā Sāhu. Under Kānhojī's successor it became one of the chief centres of piracy on the coast. In 1755 Commodore James of the Bombay Marine co-operated with the Marāthā fleet in attacking the fortress. After pursuing Angria's ships to southward, he returned to the vicinity of Suvarndrug, bombarded the garrison from the sea, and finally seized the fortress by a night attack[1]. It was then handed over to the Marāthās, and was finally taken by Colonel Kennedy, after a brief resistance, in 1818. Harnai promontory has a lighthouse, visible for 6 miles. The town contains one school, with 90 boys and 18 girls.

Jaigarh.—Seaport in the District and *tāluka* of Ratnāgiri,

[1] This exploit is commemorated by a tower standing on Shooter's Hill in Kent, which was erected by James's widow, and is called Severndroog Castle.

Bombay, situated in 17° 17′ N. and 73° 13′ E., at the southern entrance to the Shāstri or Sangameshwar river, 99 miles south of Bombay. Population (1901), 2,567. The harbour forms a bay 2 miles long and 5 miles broad, with deep water, and well protected against winds. The exports, which were valued at 4·9 lakhs in 1903–4, are chiefly firewood and molasses; the imports, valued at 6·6 lakhs in the same year, are principally rice and salt. Jaigarh is now little more than a fishing village. The fort, which occupies an area of 4 acres, is situated close to the shore on gently rising ground about 200 feet above the sea. The walls and bastions are, except in a few places, still in good repair, but are gradually decaying. The fort was originally built by the Bijāpur kings, and was afterwards the retreat of a noted Hindu pirate, the Naik of Sangameshwar, who was sufficiently powerful to resist two combined expeditions of the Portuguese and Bijāpur forces sent against him in 1583 and 1585. In 1713 Jaigarh passed into the hands of the famous Marāthā sea-robber Angria; and in June, 1818, on the downfall of the Peshwā, was surrendered to the British. A lighthouse, visible for 13 miles, stands on the headland. The town contains one school.

Khed Village.—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 17° 43′ N. and 73° 24′ E., at the head of the Jagbudi river, surrounded by hills. Population (1901), 5,053. A cart-road connects Khed with the port of Harnai, 26 miles distant. Boats of light draught work up from Dābhol and Anjanvel to Khed. East of the village are three small rock temples. The place contains a dispensary, and two schools attended by 150 boys and 9 girls.

Mālvan Town (*Maha-lavana*, the 'Salt Marsh').—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 16° 3′ N. and 73° 28′ E., 70 miles south of Ratnāgiri town. Population (1901), 19,626. In a bay almost entirely blocked by rocky reefs, there were formerly three islands. On the larger of the two outer islands was the famous fort of Sindhudrug, and on the smaller the ruined fort of Padmagarh. Sindhudrug or the 'ocean fort,' built by Sivajī, was very extensive, little less than 2 miles round the ramparts. To the Marāthās it is Sivajī's cenotaph, and his image is worshipped in the chief shrine. On what was once the inner island, now part of the mainland, is situated, almost hidden in palms, the old town of Mālvan. The English had a factory here in 1702. The modern town of Mālvan has spread far beyond the limits of the former island. Within the boundaries of the town, on

rising ground surrounded on three sides by the sea, is Rājkot fort. Mālvan was formerly a stronghold of the Marāthā pirates, known as 'the Malwans'; but in 1812 it was, under the Treaty of Kārvīr, ceded to the British by the Rājā of Kolhāpur. Towards the close of 1812 Colonel Lionel Smith completely extirpated the pirates. Iron ore of good quality is found in the neighbourhood. The value of trade at the port of Mālvan in 1903–4 was: imports 12 lakhs, exports 6½ lakhs. The town contains a Subordinate Judge's Court and eleven schools, of which two are for girls.

Masūra.—Town in the Mālvan *tāluka* of Ratnāgiri District, Bombay, situated in 16° 10′ N. and 73° 32′ E., 8 miles north-east of Mālvan. Population (1901), 8,855. It has been identified as the Muziris of Ptolemy and the *Periplus*, one of the chief marts of Western India; but the identification is disputed.

Pendur.—Town in the Mālvan *tāluka* of Ratnāgiri District, Bombay, situated in 16° 3′ N. and 73° 42′ E. Population (1901), 5,364.

Rājāpur Town.—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 16° 34′ N. and 73° 31′ E., at the head of a tidal creek, 30 miles south-by-east of Ratnāgiri town and about 15 miles from the sea. Population (1901), 5,178. Rājāpur is the oldest-looking and best preserved town in the Konkan; its streets are steep and narrow, and the market is paved and roofed. The old English factory, a massive stone building with an enclosure leading to the creek, now used as a Government office, gives the town a special interest. It is also peculiar as the only Ratnāgiri port to which Arab boats still trade direct, though vessels of any size cannot approach within 3 miles of the old stone quay. Since the opening of the Southern Mahratta Railway the trade of Rājāpur has greatly declined. In 1903–4 the exports were valued at 1·3 lakhs and the imports at 1·6 lakhs. On the south point of the bay stands a lighthouse, erected in 1873, the light of which is visible for 9 miles. Jaitāpur, situated 11 miles lower down, is the outlet for sea traffic and the place of call for coasting steamers. The municipality, established in 1876, had an average income during the decade ending 1901 of Rs. 7,500. In 1903–4 the income was Rs. 6,600. The water-supply of the town is from a lake, upwards of half a mile long, with an average breadth of 250 feet, containing about 60,000,000 gallons of water, which has been formed by damming the Kodāvli river at a point 3 miles above the town. The present supply is about

place, and most of the pipes are in serious need of repair. The town contains two Subordinate Judges' courts, two dispensaries, of which one is private, and eight schools, including one for girls.

At the time of the first Muhammadan conquest (1312), Rājāpur was the chief town of a district. In 1660–1, and again in 1670, Sivajī plundered the town, sacking the English factory. In 1713 Rājāpur was handed over to Angria. In 1756 it was taken by the Peshwā from Angria; and in 1818 it came into British possession, together with the rest of the Peshwā's dominions.

A hot spring, about a mile from the town, is much frequented on account of its virtue in curing rheumatic and skin diseases. About a mile from this spring is another which flows at uncertain intervals. The flow lasts for periods varying from one or two days to three months. It is held in great reverence and called a Gangā. Immediately the flow begins, Hindus come from long distances to bathe in it. In the middle of the town is a temple of Vithoba, where fairs are held in honour of the god twice a year.

Ratnāgiri Town.—Head-quarters of Ratnāgiri District, Bombay, situated in 16° 59′ N. and 73° 18′ E., 136 miles south-by-east of Bombay city. Population (1901), 16,094. The town is open and faces the sea; the fort stands on a rock between two small bays, but these afford neither shelter nor good anchorage, as they are completely exposed and have a rocky bottom. With any breeze from the west, a heavy surf breaks on the bar, and boats can enter only at high tide. The present town consists of four villages originally distinct. In 1822, on the transfer of the District head-quarters from Bānkot to Ratnāgiri, the villages were merged in the town. One object of interest connected with Ratnāgiri is the *tārli* or sardine fishery, which usually takes place in the months of January and February, when fleets of canoes may be seen engaged in this occupation. A single net-caster will fill his canoe in the course of a morning. The fishing-ground is just outside the breakers. The industry can be carried on only when the water is clear enough to admit of the fish being readily visible. The salt-water creek to the south of the fort is practicable only for country craft of under 20 tons burden. The value of the trade of the Ratnāgiri port in 1903–4 was returned at 23¾ lakhs: imports 17 lakhs, and exports 6¾ lakhs. The chief imports are salt, timber, catechu, and grain; the chief exports are fuel, fish, and bamboos.

In 1876 Ratnāgiri was constituted a municipality. The

average income during the decade ending 1901 was Rs. 13,000. In 1903–4 the income was likewise Rs. 13,000, chiefly derived from a house tax and octroi. The streets and the landing-place are lighted; and a travellers' bungalow is kept up by the municipality. From a perennial stream 2½ miles east of the town water has been conducted, and pipes are laid through all the chief quarters. Ratnāgiri contains nine schools, including a high school, a middle school, and a school of industry with a daily attendance of 209 students, which was opened in 1879, and is supported by the District board. The lighthouse was erected in 1867. The elevation of the lantern above high water is 320 feet, and the height of the building, from base to vane, 35 feet. It exhibits a single red, fixed, dioptric light, of order 6, which is visible at 15 miles' distance. Besides the chief revenue and judicial offices, the town contains a Subordinate Judge's court, a lunatic asylum, a civil hospital, and a leper asylum.

Sangameshwar Town.—Former head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 17° 16′ N. and 73° 33′ E., on the Shāstri river, at the confluence of the Alkandā and Varuna, about 20 miles from the coast. Population (1901), 3,233. It is a place of some sanctity and antiquity. The river, which thirty-five years ago was navigable by the largest vessels to the Sangameshwar quay, is now impassable 6 miles lower down. There is, however, some trade in grain, piece-goods, and salt fish. During the famine of 1877–8, about 1,440 tons of grain were forwarded from Bombay through Sangameshwar to the Deccan. Early in 1878, 55 houses were burnt; and a few weeks later (March 16) a disastrous conflagration completely destroyed the *tāluka* offices and 75 private houses. On the destruction of the public offices, the head-quarters of the *tāluka* were moved to the more central and convenient village of DEVRUKH.

According to the *Sāhyādri khanda*, Sangameshwar, originally called Rāmakshetra, possessed temples built by Parasu Rāma or Bhārgava Rāma. In the seventh century it was the capital of a Chālukyan king, Karna, who built temples and a fortress. Of these temples, one called Karneshvara remains. But the shrine of the Sangameshwar temple is said to be older, dating from Parasu Rāma's time. In the fourteenth century it was for long the residence of Basava, the founder of the Lingāyat sect. Every year in January–February a fair is held. At the confluence of the rivers are several sacred places (*tīrthas*), among them one known as 'cleanser of sins' (*Dhutapāp*).

It was here that Sambhājī, son of Sivajī, was taken prisoner by the Mughals and afterwards put to death in 1689. Sangameshwar contains five schools, attended by 325 pupils.

Vengurla Town.—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 15° 52′ N. and 73° 38′ E., 84 miles south-by-east of Ratnāgiri town. Population (1901), 19,018. The value of sea-borne trade in 1902–3 was: imports 19 lakhs, and exports 15 lakhs. Piece-goods, yarn, silk, sugar, and fish are the chief articles of import; and coco-nuts, coir, molasses, and cashew-nuts the principal exports. Vengurla was formerly a retreat for the pirates who infested this coast, until in 1812 it was ceded by the chief of Sāvantvādi to the British. The Vengurla port lighthouses were erected in 1869 on the mainland at the northern point of the bay. They are masonry towers built on a hill. The height of the lanterns above high water is 250 feet, and that of the building from base to vane is 186 feet. They are furnished with double (25 feet apart) white, fixed, dioptric lights, of order 6, visible from the deck of a ship 9 miles distant. From mid-June to the end of August the port is closed. The municipality, established in 1875, had an average income during the decade ending 1901 of Rs. 19,000. In 1903–4 the income was Rs. 19,750. The town contains a dispensary and seven schools, including three for girls.

In the early days after the British conquest Vengurla was a prosperous place, owing to its being the port for the military cantonments of Belgaum and Dhārwār. Until the construction of the Southern Mahratta Railway it monopolized the traffic with Bombay of Belgaum and other important towns in that District; but this traffic now passes direct by rail. In 1638 the Dutch had a trade settlement at Vengurla, where they victualled their ships during their eight months' blockade of Goa. In 1660, under the name of Mingrela, it is mentioned as a large town stretching half a league along the coast, with one of the best roads in India. About 1660 Sivajī placed a garrison in the town, and in 1664, in punishment for a revolt, burnt it to the ground. In 1675 it was again burned by the Mughals. In 1696 the Khemsāvant of Sāvantvādi overran the country, and, on pretence of visiting the Dutch chief, seized and plundered their factory. While held by the Khemsāvant, Vengurla is said to have been attacked and plundered by Angria. A small British factory was established at Vengurla some time before 1772. In 1812 the town was ceded to the British by the Rānī of Sāvantvādi. The *tāluka* offices and

the Subordinate Judge's court are now located in the old Dutch factory.

The Vengurla Rock lighthouse, not to be confounded with the Vengurla port lighthouses, was erected in 1870, on an isolated rock in 15° 53′ N. and 73° 27′ E., 9 miles west-north-west of Vengurla. The Vengurla rocks or 'burnt islands' are a group of rocky islets stretching about 3 miles from north to south and one mile from east to west. On the outermost of three larger rocks is the lighthouse. It is a masonry tower, built on rising ground. The height of the lantern above high water is 132 feet, and that of the building 31 feet. It exhibits a single white, fixed, dioptric light, of order 4, which is visible from the deck of a ship 16 miles distant.

Vijayadurg (or Gheria).—Port in the Devgarh *tāluka* of Ratnāgiri District, Bombay, situated in 16° 33′ N. and 73° 20′ E., 170 miles south of Bombay. Population (1901), 2,339. It is one of the best harbours on the western coast; and being without any bar it may be entered in all weathers, and forms a safe south-west monsoon shelter even for large ships. In the fine season vessels may anchor anywhere in the harbour. The value of the sea-borne trade of the Vijayadurg port in 1903–4 was: imports 12 lakhs, and exports 7 lakhs. On the neck of rocky land that forms the south side of the bay or harbour, Vijayadurg, one of the strongest fortresses in the Konkan, rises grandly about 100 feet above the river. The fort is probably very old. It was enlarged under the Bijāpur kings; and about the middle of the seventeenth century it was much strengthened by Sivajī, to whom it owes its triple line of walls, numerous towers, and massive interior buildings. In about 1698 the pirate chief Angria made it the capital of a territory stretching for about 150 miles along the coast and from 30 to 60 miles inland. In 1756 the fort was bombarded by the English fleet under Admiral Watson, and Colonel (afterwards Lord) Clive took possession. Towards the close of the same year it was handed over to the Peshwā, in exchange for Bānkot. In 1818, the whole of the District having passed to the British, the commandant of the fort surrendered. Vijayadurg contains three schools. The local carpenters make much-admired ornaments of various kinds from bison-horn; but the industry is very small and the craftsmen are heavily indebted.

SIND PROVINCE

Sind.—The province of Sind forms the extreme north-western portion of the Bombay Presidency, consisting of the lower valley and delta of the Indus, and lying between 23° 35′ and 28° 29′ N. and 66° 40′ and 71° 10′ E.[1] It has an area of 53,116 square miles and a population (1901) of 3,410,223, and includes one Native State, KHAIRPUR, with an area of 6,050 square miles and a population of 199,313.

Physical aspects. Boundaries and natural divisions.

Sind is bounded on the north by Baluchistān, the Punjab, and the State of Bahāwalpur; on the east by the Rājputāna States of Jaisalmer and Jodhpur; on the south by the Rann of Cutch and the Arabian Sea; and on the west by the territory of the Jām of Las Bela and of the Khān of Kalāt (Baluchistān). It comprises three well-defined tracts: the Kohistān, or hilly country, which lies as a solid block between Karāchi and Sehwān, and is thence continued north as a narrow fringe along the skirts of the Kīrthar Range; Sind proper, the central alluvial plain, watered by the Indus; and the Registān, or Thar, a band of so-called desert on the eastern border, where rolling sandhills alternating with valleys are often fairly wooded, and there are extensive level tracts of pasture land.

Rivers.

Almost every portion of the great alluvial tract of Sind has at some time or other formed a channel for the INDUS river (Sanskrit, *Sindhu*, which gives its name to the province), or one of its many branches. This main central stream of North-Western India, after collecting into its bed the waters of the five Punjab rivers, has deposited near its debouchure into the Arabian Sea a vast mass of deltaic matter, through which it flows by several shifting channels to join the sea on the southern border of the province. In every direction traces of ancient river-beds may be discovered, crossing the country like elevated dikes, for the level of the land, as in all other deltaic regions, is highest at the river bank. The Indus brings down from the turbid hill torrents a greater quantity of detritus than can be

[1] All spherical values were obtained from the compiler, *Sind Gazetteer*, and are based upon the latest information.

carried forward by its diminished velocity in the plain; and hence a constant accumulation of silt takes place along its various beds, raising their level above that of the surrounding country, and incidentally affording an easy means of irrigation, on which the agricultural prosperity of Sind entirely depends, by side channels drawn from the central river. Besides the Indus there are some hill streams or *nais*, of which the HAB, which may almost be called a river, is important. Appearing as a string of unconnected pools in the dry season, it forms the boundary between Sind and Baluchistān. Other important *nais* are the Malir from which the city of Karāchi obtains its drinking-water supply, the Baran which supplies Kohistān, and the Gāj.

Hills. The only elevations deserving the name of mountains occur in the KĪRTHAR RANGE, which separates Sind from Baluchistān, and attains in places a height of about 7,000 feet above sea-level, sinking in the south to the Pab Hills. The wild and rocky tract of KOHISTĀN, in the western portion of Karāchi District, forms almost the only remaining exception to the general flatness of the province. Another offshoot of the Kīrthar chain, however, known as the LAKHI range, extends in a barren mass eastward into the Kotri *tāluka* of Karāchi District, presenting evident marks of volcanic origin in its hot springs and sulphurous exhalations. A few insignificant limestone ranges intersect the Indus valley, on one of which, known as the Ganjo hills, with an elevation of only 100 feet, stands the Tālpur capital of Hyderābād. A second small chain, running in a north-westerly direction from the neighbourhood of Jaisalmer, attains towards the Indus a height of 150 feet, and forms the rocks on which are perched the twin towns of Rohri and Sukkur.

The plain country. The plain country comprises a mixed tract of dry desert and alluvial plain. The finest and most productive region lies in the neighbourhood of Shikārpur and Lārkāna, where a long narrow island extends for 160 miles from north to south, enclosed on one side by the Indus river, and on the other by the Western Nāra. Another great alluvial tract, with an average width of 70 or 80 miles, stretches eastward from the Indus to the Eastern Nāra. The Indus is known to have frequently changed its course within historical times. Vestiges of ancient towns still stud the neighbourhood of the Rann of Cutch. Sandhills abound near the eastern border. Large tracts rendered sterile for want of irrigation also occur in many other parts of Sind.

The scenery of the province naturally lacks variety or grandeur, and its monotony renders it tame and uninteresting. Nothing can be more dreary to a stranger approaching the shore than the low and flat coast, entirely devoid of trees and shrubs. Even among the hills of Kohistān, where fine rocky scenery abounds, the charm of foliage is almost totally wanting. In the Thar and Pārkar District, in the eastern portions of Khairpur State, and in the *tālukas* of Rohrī, Mīrpur Māthelo, and Ubauro (Sukkur District), the Registān or desert tract consists of nothing but sandhills, many of which, however, derive picturesqueness from their bold outline, and are sometimes even fairly wooded. The several ranges of sandhills succeed one another like vast waves. Scenery.

The alluvial strip which borders either bank of the Indus for a distance of 12 miles, though superior to every other part of Sind in soil and productiveness, can lay no claim to picturesque beauty. Even here, however, extensive forests of *babūl* (*Acacia arabica*) in many places skirt the reaches of the river for miles together. Near the town of Sehwān, the Lakhi range forms an abrupt escarpment towards the Indus in a perpendicular face of rock 600 feet high. But the finest views in the province are those which embrace the towns of Sukkur and Rohri, and the island fortress of Bukkur, with its lofty walls, lying in the river between them. All three crown the range of limestone hills through which the Indus has here cut its way, and the minarets and houses, especially in Rohri, overhang the stream from a towering height. A little to the south of Bukkur, again, lies the green island of Sādh Belā with its sacred shrine, while groves of date-palms and acacias stud the banks of the Indus on either side.

The extreme south-eastern border of Sind is formed by the Rann of Cutch, an immense salt-water waste, with an area of about 9,000 square miles. It bounds the District of Thar and Pārkar for a distance of nearly 80 miles. Every part of it is devoid of herbage; and a large portion is annually converted into a salt lake from June to November, owing to the influx of the sea at Lakhpat Bandar on the Kori mouth of the Indus, as well as at other places in Cutch and Kāthiāwār. During the remaining six months of the year, after the evaporation of the water, the surface becomes encrusted with salt, while herds of *chinkāra* (gazelle) and a few wild asses roam over the desert expanse. According to local tradition, a well-tilled plain, irrigated by a branch of the Indus, once covered the western portion of the Rann; but the hand of man assisted by an

earthquake diverted the waters, and the tract has ever since remained a waste of salt. The upper part of the Kori mouth still bears the name of the *purāna* or 'ancient' stream; and there is little doubt that the Indus once took a more easterly course than at present, and so rendered some portion of the Rann a fertile lowland.

The whole sea-coast of Sind, except the part between Karāchi and Cape Monze, where the Pab Hills approach the shore, is low and flat, and submerged at spring-tides. It consists, in fact, of a series of mud-banks deposited by the Indus, or in a few places of sandhills blown from seaward. The sea near the shore is very shallow, owing to the quantity of mud brought down by the river. A bank extends along the coast from Karāchi to Cutch, about 2 miles from the land and 3 miles in width, and which is generally dry at low water. This circumstance renders the approach to the shore extremely dangerous for large vessels, and the only harbour in the province is at KARĀCHI.

Lakes. Lakes are rare, the largest being the MANCHHAR in the Sehwān *tāluka*, formed by the surplus waters of the Western Nāra and the rain torrents of the Kīrthar hills. During the inundation season, it measures 20 miles in length, and covers an area of about 180 square miles. At the same period, the flood-hollows (*dandhs*) of the Eastern Nāra form pretty lakelets. The Makhi *dandh*, 50 miles in circumference, through which the Eastern Nāra winds till it emerges at Bukkur, was, owing to its thick jungle and wooded islets, the favourite haunt of the Hur outlaws.

Geology. The greater part of Sind is occupied by the alluvium of the Indus, frequently covered by sand-dunes in the eastern part of the province, which is an extension of the Rājputāna desert. Western Sind between the Indus and the Baluchistān frontier is a hilly region, consisting almost entirely of Tertiary strata folded into a succession of anticlines and synclines. The following are the principal geological divisions of this series:—

Miocene.

9. Manchhar or Siwālik (sandstones, clays, and conglomerates of fluviatile or terrestrial origin, with fossil wood and remains of extinct mammalia).

8. Gāj (limestones, shales, and sandstones, partly fluviatile, partly marine).

Oligocene.

7. Upper Nāri (principally shales and sandstones, partly fluviatile, partly marine).

Eocene.

6. Lower Nāri (principally limestone and shale, marine).

5. Kīrthar (mostly Nummulitic limestone of great thickness, forming the higher hill ranges).

4. Upper Rānīkot (shales and limestones, marine, corresponding in age with the London clay).

3. Lower Rānīkot (mostly sandstone of fluviatile origin, with beds of lignite and fossil plants).

2. *Cardita beaumonti* beds and Deccan trap (sandstones, shales, impure limestones, and intercalated volcanic beds, approximately of the same age as the Thanet Sands in England).

Cretaceous.

1. Hippuritic limestones (only locally developed).

Hot sulphurous springs occur at a number of places along the hills of Western Sind, the best known being those of Lakhi, near Sehwān, and Magar Pīr north of Karāchi. At Nagar Pārkar, on the northern border of the Rann of Cutch, there is an outcrop of granitic rocks similar to those of the Arāvalli range. The geology of Western Sind has been described in detail by Dr. W. T. Blanford in vol. xvii of the *Memoirs of the Geological Survey of India.*

Whatever is cultivated in Egypt, in Arabia, and in the countries bordering the Persian Gulf may be grown with success in Sind, since these countries are equally characterized by great summer heat, little tempered by rain; great winter cold; a dry soil and similar geological formations. The chief trees of Sind are the *babūl* (*Acacia arabica*), *bahān* (*Populus euphratica*), *kandi* (*Prosopis spicigera*), and *siras*. The *nīm*, *pīpal*, banyan, and *ber* also occur. The *babūl* is the staple tree of Lower Sind, its wood yielding timber for boat-building and fuel, its bark being used in tanning, and its leaves and pods as fodder for camels and goats. *Siras* and *lai* (tamarisk) are found in all forms from scrub to big trees. The *bahān*, common in Upper Sind, furnishes a light soft wood used in house-building and in the manufacture of the celebrated lacquer-boxes of Hāla and Khānot. The shores of the Indus delta abound with low mangrove thickets, which yield good fuel and fodder. Among exotic trees are the *tāli* (*Dalbergia Sissoo*) and the tamarind. Botany.

The commoner wild animals are the wolf, wild hog, *chinkāra* (gazelle), hog-deer, jackal, wild-cat, and hare. The hyena is rare. Ibex and *gad* (mountain sheep) are found in the western hills, and the wild ass in the eastern desert. The lynx is rarely found, while leopards and bears are occasionally Fauna.

met with in the western hills as stragglers from Baluchistān. Antelope have been introduced with success into the Khairpur State. The migratory birds which visit the province in large numbers include geese, ducks, teal, snipe, crane, flamingo, pelican, and ibis. The Indian bustard is found east of the Indus and the *tilūr* and *lekh* or florican in all parts. Quail and many kinds of sand-grouse occur in large numbers, while swans are seen on rare occasions. The principal local game-birds are the francolin, or black partridge, and the grey partridge. The blue rock-pigeon is common near the Kīrthar hills. Mortality caused by snakes has greatly diminished, but the black cobra, the *karait*, and the *kappar* are common. An unusually large species of the first (*Bungarus sindanus*) is found in Rohri. Pythons are occasionally met with in Karāchi District.

Climate and temperature.

Owing to its prevalent aridity, and the absence of the monsoons, the climate of Sind ranks among the hottest and most variable in India. The average temperature of the summer months is 95°, and that of the winter months 60°. But the thermometer frequently rises in summer to 114° and occasionally to 120°, while in winter it falls at night a few degrees below freezing-point, and ranges even in the daytime from 40° to 80°. No other part of India has so long a continuance of excessively hot weather, owing to the deficiency of rain. The climate on the sea-coast, however, is much more equable in temperature than in Upper Sind; and Karāchi, the great centre of European population, enjoys a strong sea-breeze, which blows day and night from April to October. In Northern Sind the extremes of temperature are strongly marked. The thermometer at Shikārpur often sinks below freezing-point in winter, and ice forms as late as February; yet in summer, for weeks together, the readings at midnight do not fall below 100°. Jacobābād boasts of the highest temperature yet recorded at an Indian meteorological station (126° in June, 1897).

Rainfall.

On the verge of two monsoons, Sind is unrefreshed by either. The south-west monsoon stops at Lakhpat, in Cutch, in the south-east; the north-east monsoon passes no farther than Karāchi in the extreme south-west. The rainfall of Sind is thus scanty and irregular, and it averages only about 8 inches. The record of series of almost rainless seasons is occasionally broken by a sudden excessive fall. Of such deluges, the most notable occurred at Karāchi in 1902, when 12 inches fell in 24 hours.

History. Early period.

In the earliest times of which records are available the Aryans were already settled on the Indus and traded by sea with both East Africa and the Persian Gulf (1000 B.C.). About five hundred years later Darius Hystaspes conquered the whole of the Indus valley and gave a further impetus to trade, which led to the introduction of the art of coining money. Persian rule in Sind had passed away, and with it the traffic by sea with the Persian Gulf and Arabia, before the advent of Alexander the Great, who, after passing through the plains of the Punjab, sailed down the Indus in the year 325 B.C. The departure of Alexander was followed by the rise of the Mauryan empire, which included within its boundaries the whole of Northern India as well as Gujarāt and Sind. When this empire fell, the Bactrian Greeks invaded the Punjab about 200 B.C.; and it is probable that both Apollodotus and his successor Menander ruled over Sind a hundred years before the Christian era. From this time until the 7th century A.D. India was the scene of numerous invasions by the hordes of Central Asia, of whom the Ephthalites or White Huns settled in Sind and established the Rai dynasty at Alor and Brāhmanābād. At this time sun-worship flourished in Northern Sind, while Buddhism had a firm hold on the people of the south. The Rai dynasty was terminated by the usurpation of the Brāhman minister Chach, whose family was soon after ousted by the rising power of the Muhammadans. During the reign of Chach's son Dāhir, a few peaceful Muhammadan merchants, as the Arab version of the conquest asserts, who had been sent into Sind by the Khalīf Abdul Malik to purchase female slaves and other articles of lawful commerce, were attacked by robbers, and either made prisoners or killed on the spot. One or two of the injured merchants alone escaped to make their complaints to the Khalīf, and the latter readily embraced so excellent an opportunity of spreading Islām into the delta of the Indus. He died before the army collected for the purpose could invade Sind; but his son dispatched Muhammad bin Kāsim, Sakifi, to carry out the conquest about 711.

Annexation to the Khalīfat.

Muhammad bin Kāsim set out from Shirāz with a large force, and first captured the seaport of Debal, identified by some with Manora and by others with the village of Kākar Bukera 20 miles to the south-west of Tatta, or, more probably, with TATTA itself. Thence he marched upon Nerankot, the modern Hyderābād; and after its capitulation he next took the strong fortress of Sehwān. Returning to Nerankot, the

Musalmān leader proceeded to cross the Indus, whose main channel then flowed east of the city, and successfully engaged the army of Rājā Dāhir. The native prince was slain at the fort of Rāwar, while his family were carried away prisoners by the conqueror. In 712 Muhammad bin Kāsim arrived at the capital, Alor, which was taken; and then advanced upon MULTĀN (in the present Punjab Province), which submitted with an immense treasure. The end of the first great Musalmān conqueror of India was tragic. The story runs that he was falsely accused by the daughters of Dāhir, whom he had dispatched to his master's harem, of having violated their chastity, and that he was thereupon sewn up alive in a raw cow-hide by the Khalīf's orders.

Independent Arab kingdoms.

Sind remained thenceforward, with scarcely a break, in the hands of the Muhammadans, but the hold of the Khalīfs upon this distant province grew slowly weaker, and became virtually extinct in 871. Two Arab chiefs founded what were practically independent kingdoms at Multān and Mansūra. The former comprised the upper valley of the united Indus as far as Aror; the latter extended from that town to the sea, nearly coinciding with the modern province of Sind. The country was then well cultivated; and Aror, the capital, surrounded by a double wall, is said to have almost equalled Multān in size, and to have possessed a considerable commerce. The Arab princes apparently derived but a very small revenue from Sind, and left the administration wholly in the hands of the natives. Arab soldiers held lands on military tenure, and liberal grants provided for the sacred buildings and institutions of Islām. Commerce was carried on by caravans with Khorāsān, Seistān, and Zābulistān, and by sea with China, Ceylon, and Malabar. The Arabs also permitted the native Sindīs the free exercise of their own religion to a considerable extent.

Mahmūd of Ghazni. Muhammad Ghorī. The Sūmra kings.

While Mahmūd of Ghazni was leading raids upon India, early in the eleventh century, Sind was ruled by a governor who nominally represented the Khalīf. In 1010 Mahmūd captured Multān, and in 1024 appointed his Wazīr, Abdur Razzāk, governor of the province, which was subdued by 1026. In 1053 the Sūmras, a Rājput tribe in Lower Sind, taking advantage of the weak and indolent character of the Ghazni sovereign, shook off their allegiance and succeeded in establishing a chief of their own tribe as the independent ruler of the eastern delta. Their authority never extended to Upper Sind, which continued under the rule of Mahmūd's successors and thus in time became part of the Delhi kingdom. The Sūmras

were eventually overthrown and their capital, Tūr, destroyed by the troops of Alā-ud-dīn Khiljī about the end of the thirteenth or early in the fourteenth century. In 1333 the Sammās, another Rājput tribe of Cutch and Lower Sind, following the example of the Sūmras, seized the reins of government and set up a ruler of their own under the title of Jām. A few years later (about 1340) Tatta was founded and became their capital.

The connexion of Sind with the rest of India is slight during this period; but it may be mentioned that the province was conquered by Muhammad Ghorī, and that Kubācha, who held it for him and for Kutb-ud-dīn, the first of the Slave kings of Delhi, rebelled after the latter's death, but was overthrown by Altamsh. In 1221 Jalāl-ud-dīn, the last Shāh of Khwārizm (Khiva), was driven into Sind by his enemy Chingiz Khān. 'The adventures of this heroic prince, who battled his way back through Persia only to succumb after a decade of daring energy, form a stirring page of romantic history.'[1] Muhammad bin Tughlak died on the banks of the Indus, in 1351, in pursuit of a rebel leader whom the Sammās had sheltered.

The Sammās.

The history of the Sammās after their accession to power is of interest, by reason of the ability with which they held their own in several campaigns against the forces of the imperial government, and by reason also of the conversion of large numbers of people from Hinduism to Islām. The first ruler of the line was a Muhammadan with a Hindu name, Jām Unar, a fact which seems to argue recent conversion. Under Junā, the second Jām, Bukkur in Upper Sind, which had hitherto been held on behalf of the Sultān of Delhi, was added to the Sammā dominions; but under his successor, Tamāchi, Fīroz Tughlak retook Bukkur and carried Tamāchi and his son, Khair-ud-dīn, captives to Delhi. On the death of Tamāchi a few years later, Khair-ud-dīn was released and allowed to resume the government of Sind. It was during his reign, in 1351, that Muhammad bin Tughlak entered Sind in pursuit of the rebel whom Khair-ud-dīn had sheltered. Muhammad's successor, Fīroz Shāh, was so harassed by the Sammās on his way back to Delhi that eight years later he returned to avenge himself upon them, accomplishing his purpose after preliminary failure. The Sammā kings gradually extended their authority over the whole of Sind, the zenith of their fame being reached in the time of Jām Nizām-ud-dīn,

[1] S. Lane Poole, *Mediaeval India*, p. 71.

better known as Jām Nanda, who died in 1509 after a reign of forty-six years. The line ended with Jām Fīroz, who was conquered by Shāh Beg Arghūn in 1520.

The Arghūns.

The Arghūn dynasty traced its origin to Chingiz Khān, and commenced its rule in Sind in 1521. The first prince of the line, Shāh Beg Arghūn, having been driven out of Kandahār by Bābar, defeated the Sammā army in 1520, and sacked Tatta, the capital of Jām Fīroz Sammā. By a subsequent agreement the Jām retained all Sind between Sukkur and Tatta, while the Shāh took the region north of Lakhi. But the Sammās soon after repudiated this agreement; and a battle fought, probably in the south-east of the present Hyderābād District, resulted in their utter defeat and the secure establishment of the Arghūn power. Shāh Beg afterwards captured the fort of Bukkur, and rebuilt the fortifications with bricks taken from the ancient stronghold of Aror. Just before his death in 1522 he made preparations to invade Gujarāt, but did not live to accomplish his purpose. Shāh Beg was not only a bold soldier, but also a learned Musalmān theologian and commentator. His son and successor, Mirza Shāh Hasan, finally drove Jām Fīroz from Tatta to Cutch, and at length to Gujarāt, where he died. During Shāh Hasan's reign, the Mughal emperor Humāyūn being defeated by the Afghān Sher Shāh in 1540 fled to Sind, where he endeavoured unsuccessfully to take the fort of Bukkur. After a short stay in Jodhpur, Humāyūn returned to Sind by way of Umarkot in 1542, and again attempted without success to conquer the country. Shāh Hasan died childless in 1554, after a reign of twenty-two years, and with him ended the Arghūn dynasty.

Sind under the Mughals.

A short-lived line, the Turkhān, succeeded and witnessed the sack of Tatta in 1555 by the Portuguese; but in 1592 the Mughal emperor Akbar, who was himself born at Umarkot during the flight of his father Humāyūn, defeated Mirza Jānī Beg, ruler of Tatta, and united Sind with the empire of Delhi. The province was incorporated under Akbar's organization in the *Sūbah* of Multān. During the flourishing period of the Mughal empire, the general peace of the great monarchy extended to Sind, and but few historical events of importance occurred for the next century. In the interval, however, between the consolidation of the empire by Akbar and the dismemberment which followed on the invasion of Nādir Shāh, the Daudputras, or sons of Daud Khān, rose to distinction. Weavers and warriors by profession, they led a wild and

The Daudputras.

wandering life at Khānpur, Tarai, and throughout the Sukkur country. After a long and sanguinary conflict with the Mahārs, a race of Hindu origin, the Daudputras succeeded in establishing their supremacy over Upper Sind, and founded the town of Shikārpur.

Rise of the Kalhoras.

Towards the end of the seventeenth century, another race, closely allied to the Daudputras, rose to power in the lower Indus valley. The Kalhoras traced their descent historically to Muhammad of Kambāthā (1204), and more mythically to Abbās, the uncle of the Prophet. About 1558, the family rose into notice through the sanctity of one Adam Shāh, the chief of a large sect of mendicants in Chānduka, whom the governor of Multān attacked and put to death. The *fakīrs* descended from this family long lived a life of warfare against the Mughal lieutenants, until in 1658, under Nasīr Muhammad Kalhora, they began successfully to oppose the imperial troops, and to organize themselves into a regular government. At length, about 1701, Yār Muhammad Kalhora, assisted by the Sirai or Tālpur tribe, seized upon Shikārpur, where he fixed his court, and obtained from the emperor Aurangzeb a grant of the tract between the Indus and the Nāra, together with a regular title (Khuda Yār Khān) under the imperial system. By the year 1711 Yār Muhammad had farther overrun the Kandiāro and Lārkāna tracts, as well as the country around Sukkur.

Nūr Muhammad Kalhora and Nādir Shāh.

On the death of Yār Muhammad Kalhora, in 1719, his son Nūr Muhammad succeeded to his territories, and conquered the Shikārpur territory from the Daudputras. Sehwān and its dependencies also fell under his rule, and his territory extended from the Multān border to Tatta. The fort of Bukkur, however, did not come into the possession of the Kalhoras till 1736. With this exception, Nūr Muhammad's authority stretched from the desert to the Baluchi mountains. During his reign the Tālpur tribe of Baloch, who were to be the last native rulers of Sind, first came into notice in the person of Mīr Bahrām, an able officer of the Kalhora kings. When Nādir Shāh, the Persian conqueror, swooped upon Delhi in February, 1739, and broke down the decaying Mughal organization, all the provinces west of the Indus were detached from the empire and incorporated with the Persian dominions. Tatta and Shikārpur formed part of the territory thus ceded to Nādir Shāh. Shortly after his return to Kābul, Nādir set out upon a second expedition against Sind and the Punjab, in order to repress his troublesome vassal Nūr Muhammad. Two years

earlier, the Kalhora prince had persuaded Sādik Alī, *sūbahdār* of Tatta, to make over that province in return for a sum of 3 lakhs; and this transaction apparently aroused the anger of his new suzerain. On Nādir's approach Nūr Muhammad at first fled to Umarkot, but afterwards surrendered with the loss of Shikārpur and Sibi, which the Shāh made over to the Daudputras and Afghāns. An annual tribute of 20 lakhs was also imposed upon the Kalhora prince.

Afghān supremacy. End of the Kalhoras.

On Nādir Shāh's death Sind became tributary, in 1748, to Ahmad Shāh, Durrāni. In 1754, the tribute being in arrears, Ahmad Shāh advanced against Sind, and Nūr Muhammad fled to Jaisalmer, where he died. His son, Muhammad Murād Yār Khān, managed to appease the Afghān ruler, and obtained a confirmation of his rank and power. He founded the town of Murādābād. In 1757 his subjects rose against his oppressive government and dethroned him, placing his brother Ghulām Shāh upon the throne. The new prince, in 1762, invaded Cutch, and during the next year took the seaports of Basta and Lakhpat on the Indus. In 1768 he founded the city of Hyderābād on the ancient site of Nerankot. During the early part of his reign, in 1758, the East India Company established a factory at Tatta. Sarfarāz Khān, his son and successor (1772), discouraged the Company's operations, and the factory was eventually withdrawn in 1775. Soon afterwards the Baloch deposed the chief, and two years of anarchy followed. In 1777 Ghulām Nabi Khān, a brother of Ghulām Shāh, succeeded in obtaining the throne. During his reign Mīr Bijar, a Tālpur chief, rose in rebellion, and in the battle between them the Kalhora prince lost his life. Abdun Nabi Khān, his brother, succeeded to the throne and made a compromise with Mīr Bijar, retaining the sovereignty for himself, but appointing the Tālpur chief as his minister. In 1781 an Afghān army invaded Sind, where the tribute remained always in a chronic state of arrears, but Mīr Bijar defeated it near Shikārpur. Thereupon, Abdun Nabi Khān assassinated his too successful general. Abdullah Khān Tālpur, son of the murdered man, at once seized upon the government, and the last of the Kalhoras fled to Kalāt. Thence he made many unsuccessful efforts to regain his kingdom, and at last re-established himself for a while by Afghān aid. But on his putting Abdullah Khān to death, Mīr Fateh Alī, a kinsman of the murdered Tālpur, once more expelled him. The Kalhora king made a final effort to recover his throne; but, being defeated by Mīr Fateh Alī, he fled to Jodhpur, where his descendants still hold

distinguished rank. With him ended the dynasty of the Kalhoras.

The Tālpur Mīrs.

In 1783 Mīr Fateh Alī Khān, first of the Tālpur line, established himself as Rais of Sind and obtained a *farmān* from the Afghān Shāh Zamān for its government. The history of Sind under its new dynasty—generally spoken of as the Tālpur Mīrs—is rendered very complicated by the numerous branches into which the ruling house split up. Fateh Alī Khān's nephew, Mīr Sohrāb Khān, settled with his adherents at Rohri; his son, Mīr Tharo Khān, removed to Shāhbandar; and each of them occupied the adjacent country as an independent ruler, throwing off all allegiance to the head of their house at Hyderābād.

The Tālpurs thus fell into three distinct branches—the Hyderābād or Shāhdādpur family, ruling in central Sind; the Mīrpur or Manikāni house, descendants of Mīr Tharo, ruling at Mīrpur; and the Sohrābani line, derived from Mīr Sohrāb, ruling at Khairpur. Further, to increase the complication, Fateh Alī, head of the Hyderābād Mīrs, associated with himself in the government his three younger brothers, Ghulām Alī, Karram Alī, and Murād Alī. He then turned his attention to the recovery of Karāchi and Umarkot. The former, alienated to the Khān of Kalāt, he recovered in 1795; the latter, held by the Rājā of Jodhpur, the Mīrs regained in 1813. In 1801 Mīr Fateh Alī died, leaving one son, Sobhdār, and bequeathing his dominions to his three brothers. Of these, Ghulām Alī died in 1811, and left a son, Mīr Muhammad; but the two surviving brothers retained the chief power in Hyderābād. Karram Alī died without issue in 1828; but Murād Alī left two sons, Nūr Muhammad and Nasīr Khān. Up to 1840 the government of Hyderābād was carried on by these two Mīrs, together with their cousins, Sobhdār and Mīr Muhammad. The Tālpur Mīrs adorned Hyderābād and its rival Khudābād with many handsome buildings, of which their own tombs are the most remarkable.

First dealings of the British with Sind.

The first connexion of the British with Sind took place as early as 1758, in the matter of the factory at Tatta. In 1799 a commercial mission was sent to Sind, to conduct business between the British and the Tālpur Mīrs; but it ended unsatisfactorily. The agent resided from time to time at Tatta, Shāhbandar, or Karāchi, and endured numerous indignities, until at length he received a peremptory order from the Mīrs to quit their territory. The East India Company took no notice of this insult. In 1809 an arrangement was effected

between the Mīrs and the Company, mainly for the purpose of excluding the French from settling in Sind. In 1825 the Khosas, a Baloch tribe, made incursions into Cutch, and a military demonstration became necessary as a preventive measure. In 1830 Lieutenant (afterwards Sir Alexander) Burnes, after many delays and threats on the part of the Mīrs, was permitted to follow up the course of the Indus, then unexplored, taking with him presents from the King of England to Ranjīt Singh at Lahore. Two years later Colonel Pottinger concluded a treaty with the Hyderābād Mīrs for the advancement of commerce, by which traders and merchants were permitted to use the roads and rivers of Sind, though no Englishman might settle in the country. The Khairpur Mīrs also ratified this treaty. In 1835 Colonel Pottinger obtained leave to survey the sea-coast of Sind and the delta of the Indus; yet trade did not enter the river, and the Mīrs clearly mistrusted the intentions of their powerful neighbours.

Treaty of 1839.

In 1838 the first Afghān War necessitated the dispatch of British troops to join the main army by way of the Indus, in spite of a clause in the treaty expressly forbidding the employment of the river as a military highway. Lord Auckland considered that so great an emergency overrode the text of the agreement. In December of that year a large force under Sir John Keane landed in Sind, but found itself unable to proceed, owing to obstacles thrown in its way by the Mīrs in withholding stores and carriage. After a threat to march upon Hyderābād, Sir John Keane at length succeeded in continuing his course. Owing to this hostile demeanour, a reserve force was dispatched from Bombay in 1839 to take up its station in Sind. The Baloch garrison at Manora, near Karāchi, endeavoured to prevent it from landing, and the British accordingly found it necessary to occupy that fort.

A treaty was afterwards, in 1839, concluded with the Hyderābād Mīrs, by which they agreed to pay 23 lakhs to Shāh Shujā, in commutation of all arrears of tribute due to the Afghāns; to admit the establishment in Sind of a British force not exceeding 5,000 men, the expenses being defrayed in part by the Mīrs themselves; and finally, to abolish all tolls upon trading boats on the Indus. The Khairpur Mīrs concluded a similar treaty, except as regards the subsidy. The British then took possession of the fort of Bukkur, under the terms of the engagement. By careful conciliatory measures, the British representatives secured the tranquillity of the country, so that a steam flotilla navigated the Indus unimpeded. Nūr

Muhammad, the senior Hyderābād Mīr, died in 1841, and the government passed to his two sons, conjointly with their uncle, Nasīr Khān.

War of 1843. Annexation of Sind.

In 1842 Sir Charles Napier arrived in Sind, with sole authority over all the territory on the lower Indus. New conditions were proposed to the Mīrs, owing to delay in payment of the tribute, these terms including the cession of Karāchi, Tatta, Sukkur, Bukkur, and Rohri. After some delay and a slight military demonstration, the treaty was signed in February, 1843. But the Baloch composing the Sindī army did not acquiesce in this surrender of independence; and shortly afterwards they attacked the Residency, which stood near the Indus, a few miles from Hyderābād. The Resident (Major Outram) and his small suite, after defending the building for a short time, found themselves compelled to retreat and soon after joined Sir C. Napier's force. On February 17, 1843, Napier found the Mīrs' army, 22,000 strong, posted on the Fuleli river near Miāni. He gave them battle with only 2,800 men of all arms and 12 pieces of artillery, and gained a complete and brilliant victory. The Baloch loss amounted to about 5,000 men, while that of the British did not exceed 257. Shortly after, the chief Mīrs of Hyderābād and Khairpur surrendered as prisoners of war, and the fort of Hyderābād was captured, together with the Mīrs' treasure, computed at about a crore of rupees. In March Napier received reinforcements from Sukkur, and went in search of the rest of the enemy, with 5,000 men. He found the Baloch army, 20,000 strong, under Sher Muhammad of Mīrpur, in a strong position near Dabo. After a desperate resistance, the Sindīs fled in disorder, their leader retreating to the desert. Soon afterwards our troops occupied Mīrpur Khās and Umarkot. Sind was declared a conquered country, and annexed to the British dominions, with the exception of the present Khairpur State, which was made over to Alī Murād, one of the Khairpur Mīrs who had supported the British policy.

The Tālpur family thus ceased to be a ruling power, save in Khairpur, after a sovereignty of 53 years. The Mīrs were removed successively to Bombay, Poona, and Calcutta; but in 1854 Lord Dalhousie allowed them to return to Sind and take up their residence at Hyderābād. Under the Tālpurs the government of Sind consisted of a rude military feudalism. The Mīrs themselves had little education or refinement, and lived in primitive Baloch simplicity, their extravagant pro-

pensities being shown in their fondness for horses, arms, and field sports. Their sole aim was to hoard up wealth, oppose all improvements, and enjoy themselves after their own fashion.

Progress since the annexation.

Immediately after annexation Sir C. Napier was appointed the first British Governor, while a pension of 3¾ lakhs, together with lands in *jāgīr*, was distributed amongst the deposed Mīrs. The judicial and revenue systems underwent a speedy remodelling, and the province was divided into extensive Districts. The wild border tribes were reduced to order by the skilful management of General John Jacob. Since the British annexation the chief events in Sind have consisted of commercial improvements, including especially the immense harbour works at Karāchi, which have rendered the modern capital one of the most important seaports of India. Under the Commissionership of Sir Bartle Frere (1851–9), in whose time the province was so peaceful that he was able to send his only European regiment to the Punjab during the Mutiny, Sind took most important steps in the direction of mercantile progress; and at a later date the construction of the Indus valley portion of what is now the North-Western Railway contributed greatly to the prosperity of the country, by linking Karāchi with the wheat-growing tracts of the Punjab.

In 1881 a staff of village officers was organized in Sind, and the present system of irrigation settlements introduced, under which the assessment depends on the means of irrigation used. Of recent years Sind has progressed rapidly in population and prosperity; Karāchi is now a very important port, with a steadily growing export of wheat, cotton, and oilseeds. Cultivation is extending as schemes of immigration bring settlers for the lands watered by the new canals. Sind now contains more Baloch inhabitants than the whole of Baluchistān. There are numerous settlers from the Punjab on the Jāmrao Canal; and the future of the province, which knows not famine, seems assured.

Archaeology.

The most famous ruins are at BRĀHMANĀBĀD in Thar and Pārkar District. Throughout the province are scattered remains of Muhammadan buildings, built of burnt bricks decorated with enamelled tiles in beautiful patterns. These bear legible inscriptions in Arabic characters. The finest specimens are at Tatta, and include the tomb of Jām Nizām-ud-dīn, built in great part from the remains of some magnificent Hindu temples; Dīwān Sarfa Khān's tomb, with an elaborately carved gravestone, and a *mihrāb* decorated with glazed blue and white

tiles; Nawāb Isa Khān's tomb, decorated throughout with surface tracery; and the great Jāma Masjid, built in 1647 and still in use. In Sehwān there are the remains of an old fort which legend ascribes to Alexander, besides other forts known as Charlo Rani-jo-kot, Kot Nurpur, Dharnjo, and Dilnijī. Later tile-work is found in abundance upon the Tālpur tombs at Hyderābād. In the delta of the Indus are sites of many ruined cities such as Lāhori, Kakar Bukera, Samui, Fatehbāgh, Kāt Bāmbhan, Jun, Thari, Badin, and Tūr. Close to the village of Virāwah in Thar and Pārkar are the ruins of a large and once prosperous city, Pāri Nagar, said to have been founded in A.D. 456 by Jeso Paramāra of Bālmir, and supposed to have been destroyed by the Muhammadans. In these ruins are the fragments of many Jain temples.

Population.

The following table exhibits the area and population of Sind according to the Census of 1901:—

Districts and States.	Area in square miles.	Number of		Total population.			Urban population.			Persons per square mile in rural areas.
		Towns.	Villages.	Persons.	Males.	Females.	Persons.	Males.	Females.	
Hyderābād . .	8,291	7	1,405	989,030	544,420	444,610	103,105	54,862	48,243	19
Karāchi . .	11,970	5	628	446,513	248,816	197,697	140,052	80,715	59,337	26
Sukkur . . .	5,403	5	606	523,345	281,847	241,498	100,719	54,414	46,305	78
Lārkāna . . .	5,091	5	708	656,083	354,103	301,980	32,175	17,505	14,670	123
Thar and Pārkar . .	13,690	3	666	363,894	202,727	161,167	10,517	5,701	4,816	26
Upper Sind Frontier	2,621	1	390	232,045	129,877	102,168	10,787	6,547	4,240	84
Total British Territory	47,066	26	4,403	3,210,910	1,761,790	1,449,120	397,355	219,744	177,611	60
Khairpur . . .	6,050	1	153	199,313	108,766	90,547	14,014	7,346	6,668	36
GRAND TOTAL	53,116	27	4,556	3,410,223	1,870,556	1,539,667	411,369	227,090	184,279	57

Density.

Including towns, the average density is 64 persons per square mile. The population, which is extremely scattered in all parts of the province, gathers thickest in Lārkāna (129 per square mile), Hyderābād (119), and Sukkur (97). In the Upper Sind Frontier District the density falls to 89. The extensive District of Karāchi, though it contains the capital town and largest commercial centre, has but 37 persons per square mile; in the Khairpur State the density is only 33; and in the wide but desert expanse of Thar and Pārkar District it does not exceed 27.

Of the 4,429 towns and villages in British Sind, 2,367 contain less than 500 inhabitants; 1,200 between 500 and 1,000; 693 between 1,000 and 2,000; 150 between 2,000 and 5,000; 12 between 5,000 and 10,000; 3 between 10,000 and 20,000; 2 between 20,000 and 50,000; and 2 above 50,000.

KARĀCHI, the capital city, had a population in 1901 of 116,663 persons, including 8,019 in cantonments; but its commercial importance is far greater than this total would seem to imply. SHIKĀRPUR, still a dépôt of transit trade with the Bolān Pass and Khorāsān, had, in 1901, 49,491; HYDERĀBĀD CITY, the Tālpur capital, 69,378, including 4,588 in cantonments. The other chief towns and places of interest include ALOR, the capital of Sind under its Hindu Rājās; BRĀHMANĀBĀD, a mass of extensive ruins of very great antiquity near Shāhdāpur; the fortified island of BUKKUR in the Indus; KETI, the port on the principal mouth of the Indus (2,727); KHAIRPUR, the capital of the State of the same name; KOTRI, the station on the North-Western Railway opposite Hyderābād city (7,617); LĀRKĀNA, the head-quarters of the newly formed District of that name (14,543); ROHRI (9,537); SEHWĀN (5,244); the deserted port of SHĀHBANDAR; SUKKUR, the great inland port of the Indus, and point of departure for the line of rail to Quetta (31,316); TATTA, the old emporium on the sea-board (10,783); JACOBĀBĀD, the military station of the Frontier District (10,787, including 3,107 in cantonments); UMARKOT (4,924), Akbar's birthplace; MĪRPUR KHĀS (2,787), a rising town in the Jāmrao tract; and TANDO ADAM (8,664), an important trading centre in Hyderābād.

Sind is very sparsely populated even at the present day. No statistics are available as to the number of inhabitants under its native rulers, though a probable conjecture sets it down in the early part of the nineteenth century at not more than 1,000,000, or only about 16 persons per square mile. A Census taken in 1856, exclusive of the Khairpur State, returned the population at 1,772,367. A more accurate enumeration undertaken in 1872 gave the total, again excluding the Khairpur State, at 2,206,565, thus showing a gain of 434,198 persons, or 26 per cent., in the fifteen years. The Census of 1881 disclosed a total population in British Districts of 2,417,057, which had increased to 2,875,100 in 1891. In 1901 the population was 12 per cent. greater than at the previous Census, a striking increase of over 1,000,000 having taken place in thirty years.

Immigration.

The main feature of this increase, which is found in every District of the province, seems to be the influx of foreigners, chiefly from the adjacent territories and the Punjab. In Karāchi, as in the city of Bombay and other large seaports, the indigenous population is in the minority. Much of the

increase in the more rural parts of the province may be attributed to the general development of the people, under the influence of prosperous harvests and improved means of access to markets. The rate of increase in the towns has been generally higher than in the surrounding country. Karāchi owes its prosperity to the development of its sea trade, and to the opening of direct railway communication with Upper India and the western frontier. The extension of railway communication has adversely affected Sukkur and Shikārpur, which depended largely on their overland and river traffic.

Vital statistics and diseases. The collection and registration of vital statistics does not differ materially in system from the rest of the Presidency. The average birth-rate in the province for the year 1904 was 22 per 1,000, the highest being 26 in Sukkur and the lowest 18 in Hyderābād; while the death-rate was 17 per 1,000, the highest being 25 in Karāchi and the lowest 12 in Upper Sind Frontier. The mortality is swelled by the fever which prevails after the annual inundations have subsided with the arrival of the cold season. Other common diseases are smallpox and cholera.

Plague. Plague appeared for the first time in Karāchi city in December, 1896, having probably been introduced from Bombay. From Karāchi it spread to Hyderābād in January, 1897, and to Sukkur in the following month. The epidemic in Sukkur and the neighbouring town of Rohrī was virulent; but very effective measures of repression and disinfection were adopted at a cost of Rs. 1,20,000, and there has been no recrudescence of the disease. Shikārpur has altogether escaped attack; Hyderābād has been free on several occasions of varying duration; but Karāchi has enjoyed no respite, save for a few weeks, since the first outbreak. Plague has exercised little effect on the population, except in Karāchi city. During the seven years preceding the outbreak the average annual birth-rate for the city was 47 per 1,000, and the average annual death-rate 37. This difference of 10 represents the normal growth of population, apart from variations owing to migration. For the seven years ending 1903 the birth-rate declined to 42 and the death-rate rose to 70, showing that the population was annually decreasing at the rate of 28 per 1,000. Adding to this the potential loss of normal accretion, the full effect of plague is expressed by an annual loss of 38 per 1,000. In Karāchi the number of deaths ascribed to plague from its commencement up to the end of 1903 is about 18,000, but in reality was probably larger. The mortality in Hyderābād and

Sukkur Districts up to the close of 1903 was 3,581 and 697 respectively.

Sex and age.

Classified according to sex, the native population of British Districts in 1901 consisted of—males 1,758,432, and females 1,447,649. The European element was represented by 4,829 persons: namely, males 3,358, and females 1,471. Classified according to sex and age, there were returned (i) under 15 years—boys 704,544, and girls 584,785; total children 1,289,329, or 40 per cent.; (ii) of 15 years and upwards—males 1,057,246, and females 864,335; total adults 1,921,581, or 60 per cent. In Sind the proportion of females has always been notably low. So far, no complete explanation is forthcoming of this peculiarity; but it is doubtless due, in some measure, to a large portion of the population being recently arrived immigrants, who leave their women behind.

Civil condition.

Of the total population in British Districts the unmarried number 1,626,175; the married, 1,298,630; and the widowed, 286,105, of whom two-thirds are women. The proportion of widowed is considerably less than in the rest of the Presidency, doubtless owing to the absence of prejudice against widow marriage among the majority of the population, which is Muhammadan. The premier Hindu caste of Sind, namely, the Lohānas, do not favour widow marriage, though it is not forbidden. It is noteworthy that, in some sections of the Lohāna caste, the practice of marrying a widow to her deceased husband's younger brother still prevails.

Language.

More than five-sixths of the population of Sind speak Sindī. The only other languages of importance are Rājasthānī, Baluchī, and Punjābi, spoken by immigrants from Rājputāna, Baluchistān, and the Punjab. Gujarātī is spoken in parts of Thar and Pārkar and in Karāchi city. Sindī belongs to the north-western group of Indo-Aryan languages, and is more closely connected with the Prākrit than either Marāthī or Gujarātī, having preserved numerous phonetic and grammatical forms that have dropped out of other vernaculars. In Karāchi and Hyderābād, a dialect of Sindī known as Siraikī is spoken. Another known as Lārī is the literary dialect, dealt with in grammars of the language. Sindī literature consists mainly of translations from Arabic and Persian, chiefly theological works, and a few rude national ballads.

Religion, tribe, and caste.

Classified by religion, Muhammadans number 2,446,489, or 76 per cent. of the total population in British Districts; Hindus, 751,252; Christians, 7,817; Pārsīs, 2,000; Jains, 921; Jews, 428; and 'others,' 2,003. The Sikhs, of whom a considerable

number were returned in previous years, are concealed in the Census statistics of 1901 under the denomination of Nānak-panthi Hindus. They probably amount to 150,000. The Musalmāns by race are divided into Afghāns or Pathāns, Arabs, Baloch, Brāhuis, Jats, Makrānis, Mughals, Sindīs, Shaikhs, and the menial or slave tribes, including those of African descent.

Of these ten divisions, the Jat and Makrāni are allied to the Baloch. Arabs, numbering 122,000, are largely Saiyids, or at least claim this distinction. Shaikhs, who are partly Arab, but mainly Hindu converts, number 32,000. The Afghāns reside chiefly in Sukkur and Shikārpur Districts, and are greatly superior to the Sindīs in physical development and personal courage. The Baloch consist of many tribes, originally wild mountaineers from the barren hills to the westward, who settled in Sind under the Tālpur dynasty and received large *jāgīrs* in return for military service. They are fairer, more powerful, and hardier than the Sindīs; they have genuine, though peculiar, ideas of honour; and they are brave soldiers with a large share of national pride. They are, on the other hand, grossly illiterate, rough in manners and debauched, violent and revengeful, and addicted to coarse amusements. Formerly inveterate cattle thieves, they are now less given to dishonest practices. In religion they belong to the Sunni sect, though the Tālpur Mīrs, on arrival in Sind, adopted the Shiah persuasion. The Baloch number 514,000, divided into sixteen main tribes. Of these, the most important numerically is the Rind, with its offshoots, the Dombki, Khosa, Jamāli, Jakrāni, and Lighāri, who all claim descent from Rind, the grandson of the mythical progenitor of the Baloch tribes, Harin. After the Rind group come the Chandias and Burdis. Of the Marri and Bugti tribes, who are famous on the frontier, only a small number are found in Sind. The Tālpurs, included in the Marri tribe in the Census, claim to be a branch of the Rind. From the Census of 1901 it appears that the Baloch in Sind consist of Rind and allied tribes, 254,000; Chandias, 72,000; Burdis, 65,000; others, 117,000. The Sindīs, numbering over a million, represent the original Hindu population, converted to Islām under the Abbaside Khalīfs. They are taller and more robust than the natives of the rest of the Bombay Presidency, of dark complexion and muscular frame. Their detractors represent them as idle and apathetic, addicted to drunkenness and other vices, and wanting in personal cleanliness. Though naturally indolent, they are capable of sustained effort; they are kindly, inoffensive, and on the whole honest. In religion,

they are Sunnis. Of the numerous tribal divisions of the Sindīs, the Sūmro and Samo, representing the dynasties which ruled in Sind from the eleventh to the sixteenth century, are interesting. They number 102,000 and 733,000 respectively, and form the majority of the Sindīs. The Muhānos (107,383) are boatmen and fishermen, forming a distinct section with peculiar customs.

The Hindus occupy in Sind a position analogous to that of the Musalmāns in the rest of the Presidency, being in the minority and greatly influenced by the former predominance of Musalmān ideas. The Brāhmans are illiterate and depraved, and form a very small proportion (0·4 per cent.) of the population. The premier Hindu caste is here the Lohānas, who represent half the total Hindu population. They are the Banias or merchants of Sind. The Amil section of the Lohānas are clerks and writers; they wear the Musalmān beard. The castes of numerical importance are: Lohānas, 413,000; Dhers, 70,000; Kolīs, 32,000; Rājputs, 26,000; and Brāhmans, 13,000. Among the Christians of the province, 4,437 are Roman Catholics, 3,136 belong to the Anglican communion, and 244 are of other sects. There are 4,221 Europeans, 2,988 native Christians, and 608 Eurasians. The native Christians are mostly Roman Catholics. The missions working in Sind are the Church of England Zanāna Mission, with stations at both Karāchi and Hyderābād, and the Methodist Episcopal Mission and the Roman Catholic Mission, which work only in Karāchi District.

Occupation.

The occupational distribution of the population in the British Districts and Khairpur State in 1901 was: agriculture, 75 per cent.; industries and commerce, 5 per cent.; general labour, 12 per cent. There are very few industries.

Social characteristics.

The Sindī Muhammadan is taller and more robust than the native of other Provinces of India. He is strong, extremely hardy of exposure and fatigue, and in the main truthful and honest. On the other hand, he is incapable or impatient of any prolonged labour, except earthwork or when engaged in his own cultivation. Though extremely simple in his habits in the villages, he is liable to become addicted to gambling and intoxication in the towns. He is unclean in his person and immoral. He makes a poor artisan, and nearly all the skilled workmen in the large towns are foreigners. The landowners have on the whole retrograded. Their influence over their cultivators and tribesmen has decreased with the establishment of criminal and civil courts, the increase of cultivation,

and the general relaxation of feudal ties. Careless habits of living, illiteracy, inability to cope with the money-lenders, and the uncertainties of cultivation have, rather than the extravagance so loosely ascribed to them, caused the impoverishment of many of the old families. Those surviving live for the most part within their means, and are of great assistance in local matters to the administration. The Baloch, who form a large proportion of the population, have adopted the language and approximated in habits to the Sindīs; but many tribes retain to the full their predatory instincts, especially in regard to cattle. The Baloch is also a poorer cultivator than the Sindī.

Of the Hindus, the Amils have perhaps changed more in their habits than any other class. They have been the only class freely to seek education, and with education have adopted many Western habits. Although many now enter other professions, they still hold the great majority of government appointments, for which their talents qualify them. A small number of the Baniās have availed themselves of education to enter Government service, but the majority continue to follow purely mercantile pursuits. Their most profitable traffic in the past has been money-lending, by which many have acquired fortunes in both real and personal property. They are frugal and avaricious, and generally manage to secure a competency in whatever trade they adopt.

In Upper Sind, the ordinary food of the lower classes consists of boiled rice or flat cakes of *jowār*. The accompaniment to this fare, in the shape of a little meat, vegetables, or fish, is designated *bor*; but meat is rare. Buttermilk (*khir*) is the usual beverage. In Lower Sind *bājra* is eaten as well as *jowār*, and in rice districts rice becomes the staple diet. Muhammadans do not take alcohol, but they are addicted to *bhang*. Hindus drink native liquor freely, and there is a growing taste for English spirits. Well-to-do Muhammadans eat wheaten cakes and a *pulao* of boiled rice and spiced goat's flesh. The diet of Hindus of the better class consists for the most part of rice, wheaten cakes, vegetables, and pulse. A few are vegetarians; the rest partake almost daily of spiced goat's flesh and occasionally indulge in *pulao*. Both Hindus and Muhammadans are very fond of sweetmeats. Food.

Dress is undergoing a considerable change; garments of European materials and cut are every day becoming more prevalent. The educated and official classes, more particularly among the Amils, have evolved a compromise between Oriental and Occidental costume, the principal features of which are Dress.

a long black or dark cloth coat buttoned up to the throat, with a turned-down collar, and cotton cloth or flannel trousers. European boots are also becoming general. The old Baloch hat or *siraiki topi*, now hardly ever worn by Muhammadans, has, in a modified shape, become the distinctive head-dress of the pleaders, though, even among them, it is giving way before the turban. Among Muhammadans, the almost universal head-dress is the voluminous white turban or *patko*. A flowing shirt (*pehryan*) and the loosest of trousers (*suthan*), plaited at the waist and drawn in at the ankle, are the principal garments, though among the better classes the former is surmounted in winter by a coat of English tweed or of broadcloth or green velvet, embroidered with gold lace or silk and sometimes trimmed with fur. In summer, a shawl is thrown over the shoulders or, when riding, tied round the waist. The Baloch of Upper Sind wears a white smock gathered in at the waist and reaching down to the ankles; in winter, he puts on a sheepskin *postīn* which, according to strict Baloch custom, is the only coloured garment permissible. In the Frontier District dark clothes were formerly the sign of a blood-feud; but the tradition is dying out, and the chiefs and landowners now often wear coloured coats and waistcoats, which some hide under the white smock. Instead of, or in addition to, the smock a very long shirt is frequently worn. The working costume of the cultivating classes consists of a turban, a tight cotton coat with short sleeves, and trousers dyed with indigo to conceal the dirt. The ordinary cultivator wears no warm clothes even in frosty weather, but goes about shivering with a sheet thrown over his head. In the desert, the men dress in the Kachhi fashion. The Baniās are the most conservative in their dress, though the moment a member of that class enters Government service or a profession he discards his hereditary costume for the garb of the Amil. Their ordinary dress consists of a white cotton vest (*cholo*), a waistcloth (*dhoti*), and a small flat red or white turban (*pagrī*). A short coat (*angarakho*) fastened with tapes completes their costume. In the Frontier District the *pagrī* is replaced by a small round cap or loose white turban.

Muhammadan women generally wear a cotton vest (*sholi*), red cotton trousers (*suthān*), and a shawl (*rao*) thrown over the head. In some parts a skirt (*paro*), mostly of red cotton, is worn instead of trousers. Baloch women wear a long white gown (*ghagho*), reaching to the ankles. *Parda* women, when they venture out in public, are enveloped from head to foot

in the long white *burko*, which corresponds to the yashmak of the Nearer East. Hindu women wear a white muslin vest (*cholo*), a red cotton skirt (*peshgir*), and a white muslin shawl (*rao*), which is replaced in public by a thicker garment (*chadar*) drawn over the face, leaving only one eye exposed. In the desert, the women wear a red cotton skirt, fully plaited, known as the *ghaghro*. Among Hindu ladies of the upper classes garments of a semi-European cut are coming into favour; the rudimentary Sindī slippers covering only the toes are being displaced by the European shoe, and the unwholesome fashion of encasing both arms in ivory bangles, which once put on are never removed till the wearer dies or becomes a widow, is gradually losing influence. Married women among both Muhammadans and Hindus are generally distinguished by the nose-ring.

Dwellings. In the cities substantial storeyed houses are common; in Karāchi, stone is used; in Hyderābād, brick; and in Upper Sind, sun-dried brick. These, however, are the dwellings of the wealthy; the majority live in mud houses devoid of verandas and of all but the smallest window apertures. The Muhammadan peasantry live in wattle huts or mud cottages. The large landowners of the Frontier District usually have substantial bungalows surrounded by high crenellated walls; and everywhere the Muhammadan nobleman surrounds his private apartments with a wall (*alām panāh*), sheltering them from the public gaze.

Games and amusements. The favourite game of the Sindīs is wrestling (*malakhro*), in which the negroes or Sīdīs are the most expert performers. At fairs and festivals a wrestling competition is certain to be one of the chief attractions. The national sport of the Baloch is horse-racing; the great meeting is held at the Jacobābād horse show, but there are generally races at Baloch wedding feasts, and matches and small sweepstakes are not uncommon. Cock-, quail-, partridge-, and ram-fighting are also popular amusements with the lower classes; in the riverain forests hog-baiting is occasionally practised. Hawking was formerly the favourite pastime of the Muhammadan nobility and gentry; but it is being driven out by the universal taste for breech-loaders, which, however, are rarely discharged at a bird on the wing. The educated classes have taken readily to cricket and lawn-tennis. *Chaupar*, a game played with dice on a board, is common among Hindus and Muhammadans; the former also play various card games, such as *pisakot*, *chovih*, and bezique, which afford opportunities for gambling. Among

Muhammadans, the nautch is still a source of supreme delectation, though it is losing favour with Hindus, who, in Upper Sind, delight to watch a *bhagat* or performance in which Baniā men dance and sing religious songs to the sound of drums. Both Hindus and Muhammadans are fond of instrumental music and singing; concertinas and American organs are being introduced. There are no amusements in the home.

Festivals. The important Muhammadan festivals are the Bakri Id, Muharram, and Ramzān Id. They are the occasion for feasting, prayers, the putting on of new clothes, and, above all, visits to spiritual guides (*murshids*) and to the popular shrines with which Sind is so plentifully endowed. Fairs are generally held in connexion with these shrines, of which the most famous are the shrines of Kalandar Lāl Shāhbāz at Sehwān, Shāh Abdul Latīf at Bhit Shāh near Hāla, Shaikh Tabir or Uderolal at Uderolal near Hāla, and Shāh Khair-ud-dīn in Sukkur. The fair at Sehwān is attended by a vast concourse; one of the principal features is the dancing of the dervishes who come in large numbers from all parts of the East. The chief Hindu festivals are Mahāsivarātri, Holī, Chetichand, Thadri, Dasarah, and Divāli. The first is specially observed by the votaries of Siva, who fast and decorate the *lingam*. The Holī, or Horī as it is also called, though not the occasion for the bacchanalian orgies seen in other parts of India, is still the pretext for noisy and sometimes drunken and obscene revels. Chetichand, the Hindu New Year, the first day of Chet Sudh, is observed as a rule on the river-side, where large numbers collect. The Thadri in Sāwan is the occasion for much gambling. The Dasarah and Divāli or Diāri are the two most important festivals of the Hindus; the former is celebrated with fireworks and the latter with displays of lamps.

Joint family system. The joint family system exists among both Hindus and Muhammadans, but it is disappearing. The tendency is for the sons to separate on the death of the father, and among Hindus the family generally breaks up on the death of both parents.

Nomenclature. Both Hindus and Muhammadans are known by their personal names, coupled with their patronymics. The Muhammadan is further distinguished by the designation of his tribe, which is generally, though not necessarily, an endogamous division, marriages between first cousins being regarded, as among the Arabs, with approval. A Muhammadan of the

lower classes is simply known by his personal name, followed by the name of his tribe. The Muhammadans employ the usual Arabic or Persian names, but, especially among the lower classes, names of Indian origin are frequent. The Persian terminations *bakhsh* and *dād*, meaning 'granted,' used with one or other of the many names of the Almighty are common, while the Sindī equivalent *dino* and the Siraiki *ditto* are frequently substituted. A few special Sindī names are Mitho, 'sweet'; Kauro, 'bitter'; Warayo, 'returned'; Bacho, 'preserved.' The day of birth frequently inspires a name, e.g. Sumar (Monday), Jumo (Friday). Saiyids always add the honorific Shāh to their names; Pathāns and Baloch append the title Khān.

Among Hindus, names are usually formed by suffixing to appropriate nouns such terminations as -dās, 'slave'; -mal, 'brave'; -rām, an incarnation of deity; -nand, the name of Krishna's father; -rai, 'a king'; and -chand, 'the moon.' Thus Nārāyandās means 'the servant of Nārāyan,' i.e. God; Hotchand signifies 'the friend of the moon.' The followers of Gurū Nānak and others attach the termination Singh, 'lion,' to certain words, e.g. Awat Singh. Some Sikhs even use the Persian termination Bakhsh, e.g. Gobind Bakhsh. By some, the names of the days of the week are employed, though both Shukur (Friday) and Chanchar (Saturday) are avoided, being considered unlucky. Among Hindus, the descendants of a common ancestor are designated by an adjectival form of his name: thus Gidvāni from Gidu, Advāni from Adu; and a tendency is exhibiting itself in the educated ranks of the younger generation to extend the use of the cognomen with a view to the introduction of the European style, but the paucity of names exposes the system to obvious disadvantages.

Agriculture. The soil of Sind is plastic clay, deposited by the Indus. With water, it develops into a rich mould; without water, it degenerates into a desert. There are two principal harvests—the spring or *rabi*, sown in September, October, or November, and reaped in February, March, or April; and the autumn or *kharīf*, sown during the floods of the river from May to August, and reaped from October to December.

Principal crops and fruits. The total extent of cultivated land in British Sind in 1903–4 amounted to 6,444 square miles, the greater portion of the province being uncultivable for want of water. The *rabi* harvest consists of wheat, barley, gram, vetches, oilseeds, and vegetables. The *kharīf* includes the millets known as *bājra*

and *jowār*, the two chief food-grains in Sind; rice, indigo, *san*-hemp, *til*, pulses, and cotton. The area under each staple in 1903-4 was as follows: *jowār*, 1,051 square miles; *bājra*, 1,478; rice, 1,381; wheat, 858; cotton, 319; gram, 129; *mūg*, 38; *lang*, 339; tobacco, 13; *til*, 182; miscellaneous products, such as vegetables, fruits, &c., 64 square miles. The average yield of each crop in pounds per acre is—wheat, 1,066; barley, 965; *bājra*, 763; *jowār*, 1,798; gram, 469; cotton (cleaned), 466; *til*, 448; sugar-cane, 4,315. The fruits common to the country include dates, plantains, mangoes, limes, oranges, pomegranates, citrons, figs, grapes, tamarinds, mulberries, and melons. The British have introduced apricots, peaches, and nectarines, with excellent results; and Egyptian cotton, with a longer staple than the ordinary variety, has been grown with considerable success.

Methods of cultivation.

The methods of cultivation still differ little, if at all, from the primitive type. Rotation of crops is unknown, and the implements belong to the coarsest patterns. Two bullocks generally draw the clumsy native plough, while a heavy log of wood, with a man perched on either end, and drawn by four bullocks, does duty for a harrow.

Indebtedness and loans.

Loans under the Land Improvement and Agriculturists' Loans Acts were slow in gaining popularity in Sind, owing partly to the ignorance of cultivators and partly to the hold of the money-lenders, who threatened foreclosure if money was borrowed from Government. Recently, however, the system has been much extended, and is now indispensable, in consequence of the contraction of credit caused by the introduction of the Dekkhan Agriculturists' Relief Act. But Government loans are made only to the owners of land, and not to the large class of cultivators. This class is in a chronic state of indebtedness, though much of the burden of their debts is assumed by the landowners, the money-lenders generally exacting a condition that the landowner shall be responsible for his tenants' debts. Among the landowners, especially those holding 50 acres or less, indebtedness is widespread; the larger landholders, however, find it easier to keep out of debt. The creditors are almost invariably professional money-lenders, though most of them fall in the category of agriculturists, in so far that they own land which they generally cultivate through the medium of the original owners reduced to the status of tenants. The ordinary rate of interest paid on private loans by agriculturists is 18 per cent. per annum.

Among domestic animals, the camel of the one-humped

species ranks first as a beast of burden, numbers being bred in the salt marshes of the Indus in Hyderābād and the Kohistān. Large herds of buffaloes graze on the swampy tracts of the delta; and *ghī* (clarified butter), made from their milk, forms an important item of export. The fat-tailed sheep and the goat abound in Upper Sind, Sukkur, Thar and Pārkar, and the Kohistān. The horses, though small, are active, hardy, and capable of enduring great fatigue. The Baloch of Upper Sind pay much attention to the breeding of mares. The Government has introduced English stallions; and horse-breeding is carried on for the purpose of furnishing a superior class of remounts for the cavalry, as well as to improve the local breed. There is a strong and useful type of mule. Bullocks are chiefly used for draught or for turning irrigation wheels. Good cattle are bred, of medium size. The milch cows are well-known, and are exported to other parts of the Presidency.

Domestic animals.

Irrigation.

The dry character of the soil and the almost complete absence of rain render irrigation a matter of prime importance. Sometimes, indeed, for two or three years in succession no rain whatever falls in the province. Under these circumstances the Indus is to Sind what the Nile is to Egypt. When the province was annexed in 1843, numerous irrigation canals existed which derived their supply direct from the river. These canals are carried away from the river bank in the direction the water can most easily flow to reach the fields that are to be irrigated. None of them has its head where the bank is really permanent, and they can draw off water only during the inundation season. The river must consequently rise several feet before the canals will fill. Many of these canals are but old deltaic channels, reopened and extended, and all have the appearance of rivers rather than artificial cuts. The system is very imperfect; but much has been done since the country came under British rule to improve it, and to minimize the risks to which cultivation is necessarily exposed, owing to its dependence on the capricious nature of the supply in the river. Enormous areas, formerly waste, have moreover been brought under cultivation by the construction of new canals, also dependent, as must be the case, on the river inundation, but designed on more modern principles and kept under control by means of masonry regulators near the heads. Owing to the nature of the Indus, which in its course through Sind offers only three points—Sukkur, Kotri, and Jerruck—sufficiently stable for the permanent heads necessary for perennial canals, these inundation canals far exceed the perennial canals in number, revenue

production, irrigational scope, and paying properties. The Eastern Nāra, a depression on the left bank of the Indus, has, by means of a cut through the rock above the Bukkur gorge, been converted into a river of manageable size, from which, by means of weirs, a system of perennial canals has been carried out. The latest of these—the Jāmrao Canal—is designed throughout, from headworks to village watercourses, on the most modern scientific principles. The other perennial canals are the Fuleli, the Mithrao, the Thar, and the Hiral, all of which, together with their branches, have regulators at their heads to control the water passing down them. Their mouths are not liable to be choked with silt or masked by sandbanks, as is the case with the inundation canals. Remodellings, improvements, and extensions to the old canals are being actively carried out by the Government engineers, and cultivation now is much less speculative than it used to be. The supply of water from all canals is obtained in two ways, by flow and by lift. Flow, which is due to the action of gravity, is necessary only for rice, but is much in favour with the cultivators for all kinds of crops, as it saves personal labour. On the other hand, it leads to great waste of water and to water-logging. Lift, which is represented by the Persian wheel and bullock-power, economizes water, but necessitates industry and adds about Rs. 2 per acre to the cost of raising a crop.

Major and minor works.

The principal canals on the right bank of the Indus are:—*Major*—the Desert Canal, dug to irrigate the waterless tract along the northern frontier and to convert the raiders of Kalāt into agriculturists; the Unar Wah and the Begāri, which with the Desert Canal irrigate the Upper Sind Frontier and Sukkur Districts. *Minor*—the Sukkur Canal, which is the only perennial canal on the right bank, irrigating the northern portion of Sukkur District and 109 square miles of Lārkāna; the Ghār, which waters Lārkāna; the Western Nāra, taking off 15 miles south of the Ghār, and passing through Lārkāna into the Manchhar Lake and the Sind Wah. Of these, the Begāri, the Sind, the Ghār, the Western Nāra, together with the Kalri, the Baghar near Tatta, the Pinyari, and the Sattah, were in use at the time of annexation. On the left bank:—*Major*—the Eastern Nāra works, the Jāmrao, the Thar, and the Mithrao Canals, deriving their supply from the Eastern Nāra, and watering the *tālukas* of Thar and Pārkar and of Hyderābād; the Nasrat, the Naolakhī, and the Mahī Wah—the first two irrigating parts of Hyderābād and the third irrigating parts of Sukkur District; and the Dad, known from its great velocity

as the Khune Wah throughout the first reaches. *Minor*—the Fuleli, with numerous branches, which takes off north of Hyderābād city and supplies the whole of the Tando subdivision and some parts of Karāchi; the Ghāro Mahmudo, which waters parts of Hyderābād District and is really a side channel of the Indus; the Nasir, the Karī Shamuli, the Mihrāb Wah, the Alibar Kacheri, and the great Marak and the Sarfārāz Wah, all irrigating Hyderābād District; and the Dahar canal in Sukkur.

The total number of 'major' productive works is 9, and of the 'minor' works and navigation channels for which capital accounts are kept, 8. There are 26 other 'minor' works. The area irrigated by canals has increased by about 50 per cent. since the advent of British rule, and the proportion of area protected by irrigation to the total cultivated area is now 87 per cent. The Begāri, the Ghār, the Eastern and Western Nāra, and the Fuleli with their branches and some 'minor' works are also navigable channels. The financial results of the irrigation works for a series of years are shown in the following table:—

	1880-1.	1890-1.	1900-1.	1903-4.
Number of works . .	32	33	63	67
Irrigated area in square miles	2,332	3,443	4,756	4,925
Total receipts . . Rs.	30,68,000	47,00,000	67,64,000	69,69,000
Current expenditure . Rs.	13,01,000	20,88,000	24,65,000	29,47,000

Cultivation is also carried on either within embankments, which are raised to impound the scanty rainfall, or on water-courses which distribute the water of the hill streams or *nāis*. Some of these *nāis* are of a considerable size and perennial; others fail during the dry season. The province contains more than 30,000 wells, of which 12,600 are used for irrigation purposes. The area irrigated from wells was 111 square miles in 1903-4, and the assessment amounted to Rs. 22,000. The use of the Persian wheel for lifting water from wells is general.

Seafish abound along the coast. The principal are the pomphlet, sole, and sardine, which come in shoals in February; the shark, saw-fish, ray, skate, *ringan sird* (a cod), *sīr*, *cavalho*, and red snapper. Of fresh-water fish, which are of much more importance than the seafish, the chief are the *palla*, *dhambhro* (a carp), *singhāro*, *jhirkhan*, and *gandan*. The long and also the snub-nosed crocodile are found in the Indus. Excellent oysters are collected at Karāchi. Fisheries.

Rents.

There are few tenant-rights in existence in Sind. The smaller *zamīndārs* cultivate their own land, while the larger estates are let to yearly tenants, who almost always pay rent in kind for the privilege of cultivating, the *zamīndārs* being responsible for the Government revenue. The share of the produce paid varies from one-fourth to one-half, according to the difficulty and expense of cultivating. In Upper Sind, in the Rohri *tāluka*, a special form of tenancy known as *maurūsi haripan*, or 'hereditary tenancy,' exists, presenting some resemblance to the *aforamento* of the Portuguese. The hereditary tenant pays to the proprietor a quit-rent, known as *lapo*, *zamīndāri*, *malkano*, *tobro* or *deh kharch*, seldom exceeding 6 or 8 annas per acre. The rate cannot be enhanced. The settlement of the Government demand is then made direct with the tenant, against whom, in the land registers, the quit-rent is also entered. This right of occupancy is permanent and alienable. In other cases, the *karis* or cultivators pay *lapo* to the *zamīndār*, and also a proportion of the crop as rent, fixed in accordance with custom. The *zamīndār* is then liable for the Government assessment.

Wages.

The daily wages for skilled labour are one rupee in the case of masons, and 12 annas for carpenters and blacksmiths. Unskilled labourers receive from 4 to 8 annas. It is not customary to give food in addition to money wages. Except among the Muhāno fisher-folk and Musalmān cultivators, the women do not perform outdoor labour. The average rates for skilled and unskilled labour in different parts of the province during the decade ending 1903 are shown in the following table:—

Districts.	Skilled.		Unskilled.	
	Maximum.	Minimum.	Maximum.	Minimum.
	R. a. p.	R. a. p.	R. a. p.	R. a. p.
Hyderābād	1 0 0	0 12 0	0 6 6	0 4 0
Karāchi	1 8 0	0 10 0	0 8 0	0 5 0
Sukkur	1 2 0	1 0 0	0 6 6	0 4 0
Lārkāna	1 0 0	0 14 0	0 6 6	0 5 0
Thar and Pārkar	1 0 0	0 12 0	0 6 6	0 4 3
Upper Sind Frontier	1 0 0	0 12 0	0 5 6	0 3 3

The rates are generally above the normal level of the Presidency. During the last decade, immigrants driven by famine from Rājputāna and Kāthiāwār have considerably lowered the high rates of wages previously prevailing.

Material condition.

The diffusion of education and the expansion and development of the agricultural resources of the province have effected much improvement in the condition of the people. The

middle-class clerk is rapidly adopting a more European style of living. Besides the evolution in dress noticed above, he now adds chairs and a table to the few cots which formerly represented his furniture, he buys glass and crockery, and replaces the primitive wick and earthen bowl by an oil-lamp. Tea and cigarettes are also purchased, and his food generally is of better quality. This tendency is not so noticeable in the cultivator. His dress and furniture betoken no change; but his body is well nourished and, except in winter, well clothed. Education has not yet disclosed to him other wants. For the landless labourer of Sind work is always plentiful, and its return sufficient to supply all his material wants.

Forests. The extent of forest land is small for a province of so large an area, amounting to only 1,066 square miles, excluding the State of Khairpur. The Forest department has charge of about 100 separate forests (under the control of a Deputy-Conservator), chiefly situated along the banks of the Indus, extending southward from Ghotki to the mid delta. They run in narrow strips, from a quarter of a mile to 2 miles in breadth, and about 3 miles in length. These strips of forest are supposed to have been constructed as game preserves by the Mīrs. Many of them suffer greatly at times from the encroachments of the stream. The floods of 1863 swept away 1,000 acres of the Dhareja forest in Sukkur District, and a similar misfortune occurred to the forests of Sunder Belo and Samtia in the two succeeding years.

The common trees have already been noticed under Botany. The delta of the Indus contains no forests, but its shores and inlets abound with low thickets of mangrove-trees, the wood of which makes good fuel. The Forest department has lately introduced several valuable exotics, including the tamarind, the water-chestnut, and the tallow-tree. The revenue derived from the Sind forests in 1860–1 was 1·2 lakhs, while in 1903–4 the receipts amounted to nearly $3\frac{1}{4}$ lakhs. These are mainly from grazing fees, the sale of firewood and timber, cultivation, fisheries, charcoal, *babūl* pods and seeds, reeds, &c. Large quantities of firewood are exported.

Minerals. The salt of the delta is the only mineral product of commercial importance. Extensive beds of remarkably pure bay salt occur on the Sirganda creek, an eastern arm of the Indus, said to be capable of supplying the consumption of the whole world for a century. Since 1880, no salt has been taken from these deposits, all that is required being manufactured at Maurypur. The only deposits now worked are at Dilyar and

Saran in Thar and Pārkar. Fuller's earth and soda compounds are found in Sind.

Lignite occurs interbedded with the lower Rānikot formation, south-west of Kotri. Limestone is found abundantly over Western Sind, often containing numerous flint nodules which were, at one time, largely made use of for flintlocks. Hot sulphurous springs occur at a number of places along the hills of Western Sind, the best known being those of Lakhi near Sehwān and Magar Pīr north of Karāchi.

Arts and manufactures.

Though chiefly an agricultural and pastoral country, Sind has a reputation for pottery, leathern work, and carpets, which in design and finish are equal to the productions of any part of the Bombay Presidency. The chief articles produced at Hyderābād are blankets, coarse cotton cloth, camel fittings, metal-work, lacquered work, enamel, and gold and silver embroidery. Hāla is famous for pottery and tiles, Bubak for carpets, and Tatta for cotton *lungīs*. The principal productions of Shikārpur are earthenware, metal vessels of all descriptions, coarse cotton cloth, and leathern articles. Lacquered work, embroidered shoes, woollen carpets, and saddle-bags are the chief products of the Upper Sind Frontier District.

In 1904 there were 30 cotton-ginning mills in the province, mostly in Hyderābād (23), which employed more than 4,000 hands. Many rice-husking factories have been opened in Lārkāna District. In Karāchi District the numerous factories include an arsenal, 6 cotton-ginning, cleaning, and pressing factories, 2 bone-mills, 2 metal works, and a railway workshop. The province has in all 40 factories, employing over 8,000 operatives.

Trade and commerce.

The trade of Sind centres almost entirely in the great seaport of Karāchi, a creation of British rule, and now the chief port of entry and exit for the Punjab. The total value of the imports into Karāchi in 1903–4 amounted to 9·6 crores, while those into the rest of the province were only about 3 lakhs. In the same year, the exports from Karāchi amounted to about 15 crores, and from the remainder of Sind to nearly 8½ lakhs. The staple articles of export are raw cotton, wool, wheat and other grains.

Exports. Cotton.

Karāchi has long formed the chief outlet for the cotton crops of Sind and the Punjab. The province at one time actually imported the material necessary for its own petty domestic manufactures from Cutch and Gujarāt, to the amount of several thousand *maunds* annually. About 1840, however, extensive cotton plantations sprang up in Sind itself. In 1861

exports first began; and in 1866, by which time cotton was also received from the Punjab, they exceeded 250,000 cwts. At present, cotton cultivation occupies 319 square miles, and the province annually supplies Karāchi with about 369,000 cwts. The remainder exported consists of Punjab cotton, from the Districts of Multān, Lahore, and Amritsar; but it bears in European markets the name of 'Sind,' from its place of shipment. Since 1870, a large trade in raw cotton has sprung up with China. The total export of raw cotton in 1903-4 amounted to 1,026,330 cwts.

Wool. The wool of Sind forms a staple of almost equal importance, though the larger portion of the exports comes, not from the province itself, but from Ferozepore District in the Punjab, and from Afghānistān and Baluchistān. The supply from the latter countries is brought into the market in a dirty condition. The value of wool exported from Karāchi in 1873-4 was 63·5 lakhs, which increased to 76 lakhs in 1903-4.

Wheat. Of late years, a very important and increasing trade in wheat with Europe has been developed. The supply comes almost entirely from the Punjab. The following table shows the exports (in tons) of wheat from Karāchi for a series of years:—

1872-3	8,499	1892-3	173,691
1882-3	136,614	1902-3	442,411
1903-4	869,355		

Land trade. The external land trade of Sind is with Afghānistān, Baluchistān, and Seistān. The value of imports and exports in 1903-4 amounted to 48 and 41 lakhs, respectively. The share of Baluchistān is 15 per cent., of Seistān 9 per cent., and the rest (76 per cent.) is with Afghānistān. The chief imports are horses, sheep, goats, piece-goods, drugs and medicines, *ghī*, mustard, grapes, and raw wool; the exports are piece-goods of European and Indian manufacture, indigo, wheat, rice, and sugar.

Karāchi has a Chamber of Commerce and a Port Trust. The great harbour works of KARĀCHI are described under that article.

Communications. Railways. Communications are carried on by means of the Indus, by numerous excellent roads, by the North-Western Railway, and by the Hyderābād-Jodhpur metre-gauge line which connects the frontier with the Jodhpur-Bīkaner Railway, thus linking Sind at Hyderābād with Rājputāna, Northern and Central India, and Gujarāt. The Indus is under the charge of

a special Government department, the Indus Conservancy[1], the duty of which is to remove all obstructions to navigation as soon as they appear. The main line of the North-Western Railway traverses the province from north to south, entering it at Reti and terminating at Karāchi and Kiamāri. Between Karāchi and Kotri the line is double; between Rohri and Reti it is being doubled; and between Kotri and Rohri there is a single line on either side of the Indus. The eastern Kotri-Rohri chord was originally constructed in consequence of the shifting of the right bank of the Indus and frequent breaches, which dislocated communication. The line on the left bank is on high ground and less liable to inundation, and saves about 36½ miles on the through distance from the Punjab to Karāchi. The Quetta branch commences at Ruk, and running north-west leaves the province some little way beyond Jacobābād. Another branch runs south-east from Hyderābād to Badin, and is likely before long to form part of the Bombay-Sind connexion railway. A short branch of 3 miles connects Phulji with Puranadero on the Indus right bank. The North-Western Railway facilitates the transmission of goods from Karāchi to Northern Sind and the Punjab, or vice versa, thus saving the long detour by sea and river between Karāchi and Kotri, via the Indus delta. The Indus has been bridged at Sukkur and Kotri. The distance from Karāchi to Delhi by standard gauge throughout via Bhatinda is 907 miles, and by mixed gauge via Hyderābād and Jodhpur 781 miles.

Roads.

Karāchi is also the focus of a number of trade routes from Afghānistān and Central Asia. Three important lines converge at Karāchi, placing it in direct communication with the interior of Sind, with Las Bela and Kalāt. Trunk roads connect Sukkur District with the adjoining Districts of Upper Sind, and with Lārkāna, Hyderābād, and Karāchi. The total length of roads (1903-4) in the province is 12,776 miles, of which 153 miles are metalled.

Inland navigation.

The Indus is navigable by country boats at all times of the year, and affords facilities of communication for both the import and export trade of the areas in proximity to the river. On the Fuleli Canal about 100 country boats ply for the greater part of the year, and steam launches have recently been introduced for passenger traffic.

Post and telegraphs.

Sind forms the most important part of the Sind and Baluchistān Postal Circle, which is in charge of a Deputy-Post-

[1] This department and the fees levied for its upkeep were abolished in March, 1906.

master-General. The following statistics show the advance in postal business since 1880–1. The figures include those for the State of Khairpur.

	1880–1.	1890–1.	1900–1.	1903–4.
Number of post offices	85*	127	168	193
Number of letter-boxes	29*	85	200	212
Number of miles of postal communication	1,994*	1,725	2,026	2,109½
Total number of postal articles delivered—				
Letters	5,152,731*	4,983,893*	5,668,297	5,598,709
Postcards	280,764*	1,435,779*	3,199,659	3,691,870
Packets	55,219*	204,271*	344,977†	454,727†
Newspapers	674,755*	719,519*	568,176‡	549,690‡
Parcels	34,935*	42,913*	49,330	53,941
Value of stamps sold to the public . Rs.	79,370*	2,50,810*	2,61,213	3,48,167*
Value of money orders issued . . Rs.	26,41,047*	51,31,980*	57,59,110*	67,28,244*
Total amount of savings bank deposits Rs.	...	23,79,759*	33,25,793*	40,03,929*

* Including figures for Baluchistān.
† Including unregistered newspapers.
‡ Registered as newspapers in the Post Office.

A submarine cable, laid in 1864, connects Karāchi with Fao in Turkish Arabia, and thence by Turkish Government telegraph with Constantinople and Western Europe. Another telegraph line runs from Karāchi along the Makrān coast, and thence by submarine cable to Bushire in Persia, connecting ultimately with the Russian system, as well as with the Siemens line to Berlin and England.

Administration.

Sind forms a non-regulation sub-province under a Commissioner, who has, however, larger powers than those of an ordinary Commissioner of a Division. It contains four Collectorates — Karāchi, Sukkur, Lārkāna, and Hyderābād; together with the two Districts of Thar and Pārkar and the Upper Sind Frontier, each under a Deputy-Commissioner, besides the Native State of Khairpur. It is nominally a 'scheduled area,' i. e. it is not necessarily brought within, or is from time to time removed from, the operation of the general Acts of the legislature and the jurisdiction of the ordinary courts of judicature, but actually has been brought under the ordinary laws and jurisdiction. The Commissioner has two Assistants, one being an Indian Civilian who performs the duties of a secretary.

The Districts were originally administered by a separate service, the Sind Commission; but this has been gradually

superseded by the Indian Civil Service and is now almost extinct. The Provincial and Subordinate services are, however, distinct from those of the Bombay Presidency. The Collector of Sukkur is Political Agent for the KHAIRPUR STATE.

Civil and criminal justice.

The Sadr Court, presided over by a Judicial Commissioner, is the highest court of civil and criminal appeal; and the High Court at Bombay has no jurisdiction in or over Sind, except as regards (1) its powers under the Administrator-General Act, 1874; (2) probates and administrations; (3) decrees in matrimonial cases; and (4) European British subjects. The District Court of Karāchi is a Colonial Court of Admiralty, from which an appeal lies to the Sadr Court, and ultimately to His Majesty in Council[1]. The Subordinate Judges in Sind form a distinct service; otherwise, the judicial system does not differ from that in the rest of the Presidency. In certain parts of Upper Sind, the Sind Frontier Regulations are still in force, whereby the District Magistrate can refer murders and other offences likely to give rise to reprisals among Baloch and Pathāns to the speedier and more primitive procedure of a *jirga* or council of their own elders, and himself punish those found guilty. In such matters he is not subject to the jurisdiction of the Sadr Court.

Revenue. Revenue before British rule.

The revenue of Sind under Arab rule appears to have been small, and was chiefly derived from the land tax. The assessment of Sind and Multān was 27 lakhs; and this is supposed to have comprised the poll tax, customs duties, and other miscellaneous items, besides the land tax, which was fixed at two-fifths of the produce of wheat and barley if the fields were watered by public canals, and three-tenths if irrigated by wheels or other artificial means, and at one-fourth if altogether unirrigated. The form of government under the Tālpurs may be described as a purely military despotism on feudal principles, their Baloch chieftains holding *jāgīrs* or grants of land for rendering service to the state when called upon. The land revenue was mainly paid in kind, the state share being one-eighth, two-fifths, or one-fifth of the produce according to the nature of the land cultivated. A cess, payable

[1] Since 1906 the Sadr Court and the District Court, Karāchi, have been amalgamated in a new Court, known as the Court of the Judicial Commissioner of Sind. It is presided over by a Judicial Commissioner and two additional Judicial Commissioners, one of whom is to be a barrister especially qualified to deal with mercantile cases. The new court performs all the functions of a High Court, and the two additional Commissioners also perform the duties of the District and Sessions Court of Karāchi.

usually in kind, was levied on land irrigated by water-wheels, and a capitation tax on Hindus and traders. A cash payment, fixed at a certain sum per *jarīb* (about half an acre) and varying according to the nature of the soil, was also exacted. The average seems to have ranged from Rs. 6 to Rs. 12 per *jarīb*. An *ad valorem* duty of 6 per cent. was levied on all goods imported into, and 2½ per cent. on those exported from, Karāchi, in addition to a 3 per cent. town duty. All fishermen were forced to surrender one-third of the produce of their nets to Government, and each boat on the Indus paid a fixed tax. The Mīrs farmed the greater part of the revenue to contractors, a system which led to great abuses. The amount of revenue collected from every source under the Tālpur dynasty has been variously estimated; its real value was never known, but in 1809 it was said to be nearly 43 lakhs; in 1814, 61 lakhs; in 1824, under 50 lakhs, and this subsequently decreased to 35 lakhs.

Land revenue.

The land in Sind is held by a large number of ryots (peasant occupants), and by a small number of large *zamīndār* proprietors. At the present time there are in round figures 32,700 holdings of under 5 acres, 61,000 of from 5 to 25 acres, 27,500 of from 25 to 100 acres, and 11,400 of 100 acres and over. With few exceptions, 5,000 acres is the limit of large holdings. Both *ryotwāri* and *zamīndāri* tenures occur, but the latter is the commonest tenure throughout the province. The *zamīndār* supplies the seed, plough, cattle, and labour, divides the crop, and pays the assessment out of his share of it, after recovering the value of the seed advanced. At annexation, and for many years afterwards, the revenue was collected in kind. Sir Bartle Frere introduced cash payments, and a regular survey was commenced in 1863. In 1882–3 the existing forms of settlement were three in number—the original, revised, and irrigational settlements; but by 1902–3 the whole of the province had been brought under the irrigational settlement, which includes the charge for irrigation water under land revenue. The special feature of the Sind land settlement is the allowance for fallows, which are common owing to the poorness of the soil, the abundance of waste land, and the absence of a sufficient supply of manure. The assessment is now based on the mode of irrigation adopted, it being open to the farmer to choose the best method of irrigation, season by season. Occupants are liable to the full assessment on each survey number when cultivated, but fallow lands are free provided that assessment is paid thereon

once in five years. Remissions are granted freely, and the fallow rules are suspended in years of bad inundation.

Encumbered estates and special grants.

To protect the owners of large estates from the results of financial embarrassment, two Encumbered Estates Acts, Bombay Acts XIV of 1876 and XX of 1896, have been introduced, and in March, 1901, certain sections of the Dekkhan Agriculturists' Relief Act (1879) were applied to Sind. A special officer is entrusted with the charge of encumbered estates administered by Government on behalf of the owners. In the lands commanded by the Jāmrao Canal, grants made since 1900 are subject to the condition that they shall not be transferred without the sanction of the Commissioner. The rent-free or partial rent-free tenures in Sind comprise *jāgīrs*, charitable grants (*khairāts*), and garden grants. The descendants of the Tālpur dynasty hold *jāgīrs* permanently alienated. Many other *jāgīrs* have been granted on terms involving their eventual lapse to Government. On the Sind frontier, an interesting survival of former land grants made by the Afghān government to Pathān settlers is to be found in the *pattadāri* grants, equivalent to an assignment of a fixed portion of the revenue of certain lands, and amounting in all to half a lakh of rupees. These grants are also found in Karāchi and Sukkur Districts. *Khairāts*, or charitable grants to Saiyids, amount to 6 lakhs, being the estimated revenue of the lands so granted. In addition to these ordinary alienations, large tracts of land in the Upper Sind Frontier District have been granted rent-free to Baloch chiefs and their tribesmen. The area of these grants is 26,000 acres. Garden grants are either rent-free or on reduced assessment, to encourage the cultivation of garden produce, while *huri* and *seri* grants represent lands allotted for the growing of trees or in reward for public service, such as the detection of crime.

Rates of land revenue assessment and total receipts.

The minimum and maximum rates of assessment per acre on 'dry' land vary from R. 1 to Rs. 3-8, on rice lands Rs. 2-3 to Rs. 5-4, and on garden lands Rs. 2-3 to Rs. 6-8. The total land revenue in 1903-4 was 92·2 lakhs, of which 69·6 lakhs was from canal-irrigation. The gross revenues in the same year from all sources amounted to 1·5 crores. The land tax ordinarily forms two-thirds of the net revenues of Sind; but remissions are constantly necessitated by droughts, floods, or bursting of embankments. In spite of these drawbacks, however, the revenue has steadily increased under British rule. The cost of clearing canals forms one of the most important items of public expenditure.

The chief port in Sind is Karāchi. The Commissioner in Sind is the chief customs authority; and the Collector of Customs and Salt Revenue in Sind, aided by two Assistants, is chief customs officer for all ports in the province. Small establishments are maintained at Keti Bandar and Sirganda—two subordinate ports, which have practically no foreign trade. The average annual receipts of Karāchi port were 8 lakhs during the decade 1881–90, and $25\frac{1}{2}$ lakhs during the next ten years, the principal items in both periods being spirits and liquors $4\frac{1}{4}$ lakhs and $5\frac{1}{2}$ lakhs, and petroleum Rs. 66,000 and 1·3 lakhs, respectively. Between 1894 and 1900 duties on sugar realized 5 lakhs and those on cotton goods more than $6\frac{1}{2}$ lakhs. In 1903–4 the total receipts exceeded $33\frac{1}{2}$ lakhs, the chief heads of receipt being petroleum about $2\frac{1}{3}$ lakhs, sugar $6\frac{2}{3}$ lakhs, spirits and wines 7 lakhs, and cotton goods more than 7 lakhs. Miscellaneous revenue. Customs.

The Collector of Customs and Salt Revenue administers the Salt department, subject to the control of the Commissioner in Sind. The province produces nearly all the salt required for local consumption, the chief sources of supply being the Maurypur salt-works, 7 miles from Karāchi, and the Dilyar and Saran deposits in Thar and Pārkar District. At these three centres and also at Sukkur, where a dépôt is maintained for the convenience of the people of Upper Sind, salt is issued to the public after payment of duty. A small extra charge is made at Maurypur, Dilyar, and Saran to cover the cost of manufacture, and at the Sukkur dépôt for railway freight. The State of Khairpur is annually supplied with about 12,000 maunds of salt from Maurypur, free of duty. The manufacture of salt by private individuals is strictly prohibited. The quantity of salt manufactured during the decades ending 1890 and 1900 averaged 225,000 maunds and 288,000 maunds, and in 1903 amounted to 349,000 maunds. Rock-salt is imported from the Punjab by private individuals, chiefly for the use of Punjābi residents, the imports amounting to 11,000 maunds in 1903. Small quantities of table and packing salt are imported from Europe. The average consumption per head rose from 5·8 lb. in 1881 to 7·3 lb. in 1891 and 7·4 lb. in 1903. The total revenue from salt in 1903–4 amounted to 6·3 lakhs. There are two Government fishing yards at Shamspir and Khadda, near Karāchi, to which salt is supplied at a reduced rate of R. 1 per maund, on condition that the curing is performed within the Government enclosure. The extension of railway communications has had Salt.

no appreciable effect on the consumption of salt in the province.

Opium. The opium revenue of Sind is derived partly from transhipment or re-exportation fees levied upon foreign opium transhipped or re-exported at Karāchi, and partly from excise duty upon opium sold at the District treasuries to licensed dealers for local consumption. The average number of chests of opium carried annually from the Persian Gulf to Hongkong and other ports via Karāchi and Bombay rose from 1,990 between 1881 and 1890 to 2,389 in the next decade. In 1903 the number was 2,873. The amount of fees for each of these periods was Rs. 9,500, Rs. 11,400, and Rs. 13,800. Poppy cultivation being prohibited, opium for local consumption is obtained from Bombay and issued to persons selected by the Commissioner in Sind from the tenderers, who are allowed to sell opium at single shops, and are bound to regulate their selling prices according to a standard fixed by the Commissioner. Licensed practitioners are allowed to keep one seer of opium for medical purposes, while private persons may possess three tolas of opium and five seers of poppy-heads, except in a portion of Thar and Pārkar District on the east of the Nāra Canal, where the limit for private possession is ten tolas. The revenue from opium fluctuates with the price of labour, the character of the harvest, and the general condition of the classes addicted to the use of it.

Excise. Excise revenue in Sind includes receipts on account of country liquor, intoxicating drugs other than opium, foreign imported liquors, and toddy. Country liquor is either *mahuā* spirit, obtained from distilleries at Uran near Bombay, or molasses spirit from a central distillery at Kotri in Hyderābād District. Licences for distillation are granted to persons chosen by Government, who pay an annual fee of R. 1 per gallon of the capacity of their stills. A few wholesale licences are granted free of charge, while the retail traders, selected by the Collector or Deputy-Commissioner for each District, pay licence fees varying from Rs. 500 in Karāchi town to Rs. 6 in rural areas. The trade in intoxicating drugs, namely *bhang*, *charas*, and *gānja*, is regulated by the Bombay Abkāri Act. The cultivation of hemp under licence is restricted to Deho Yakubani and Bubak in Lārkāna District, the *bhang* produced being stored in a central warehouse at Bubak, whence the retail and wholesale dealers are supplied. *Gānja* is usually obtained from Panvel in the Kolāba District of Bombay, and *charas* from the Government warehouse at Amritsar in the Punjab. A quanti-

tative duty is levied of R. 1 per seer on *bhang*, Rs. 6 per seer on *charas*, and Rs. 5 per seer on *gānja*, the retail licences for each shop being sold by auction every year. Government regulates the maximum daily quantity which may be purchased by one person.

The excise revenue from foreign liquors is derived from licences for the right of sale, which are of three kinds: importers' licences, granted only in Karāchi city to large firms for the sale of not less than 2 gallons at a time; wholesale licences, at fees varying from Rs. 25 to Rs. 250, for the sale of not less than one pint at a time; and retail licences, which permit unrestricted sale on payment of fees ranging from Rs. 500 to Rs. 700. Rum and malt liquor manufactured by the Murree Brewery Company at Quetta are treated as foreign spirit, and are sold only in the towns of Karāchi, Hyderābād, and Sukkur. The consumption of toddy is very small, there being only nine shops in Sind authorized to sell it. The incidence of excise revenue per head of population was 2 annas in 1881, 4·4 annas in 1891, and 5·4 annas in 1901. Imports of foreign liquor rose from 264,000 gallons in 1887–8 to 488,000 gallons in 1890–1, 538,000 in 1900–1, and 601,000 in 1903–4. The average net revenue from country liquor and from intoxicating drugs rose from 3½ lakhs to 5 lakhs and from Rs. 84,000 to 1·3 lakhs, respectively, during the decade ending 1890, and to nearly 8 lakhs and 2·7 lakhs during the following decade, the actual revenue under each head in 1903–4 being about 8½ lakhs and 2·3 lakhs. Government are considering the question of still further restricting the sale of cheap European spirits, which are much in favour with the Christian, Pārsī, and Hindu population; but the consumption of country liquor and intoxicating drugs by both Hindus and Muhammadans has, of recent years, been practically stationary, subject to slight fluctuations in accordance with retail prices and the character of the harvests. The number of shops for each District is strictly fixed by the Commissioner; and no shop is opened or removed to a new locality without previously consulting local opinion.

Public works.

There is a special irrigation branch of the Public Works department in Sind, for dealing with the work arising from the canal system, the control being vested in two Superintending Engineers—one for the Indus right-bank canals and the other for the canals of the left bank. Each of these two divisions is again subdivided into five districts, each under an Executive Engineer; and to cope with new work, a special survey and

construction district, also under an Executive Engineer, has lately been organized.

The Indus Commission, consisting of the Commissioner in Sind as president, with the two Superintending Engineers and a secretary as members, was constituted in 1901. The duties of the Indus Commission, which acts as an advisory board to Government in all matters relating to the Indus within the boundaries of the province, are briefly as follows: to record scientific observations upon the velocity and discharge of the current; to superintend topographical or hydrographical surveys in connexion with changes in the bed and water-level, and with alluvion and diluvion; to maintain river gauges and register their readings; to record on maps all changes noted by their own engineer or reported from various Districts and the Native States; to investigate the relation between the rise of level at Sukkur and Kotri; to discuss and decide proposals for works upon old and new canals, for new embankments, sluices, and extensions; to consider and decide what expenditure shall be incurred upon the maintenance of lines of embankment; to carry out works required for the conservation of the river banks, and for the improvement and clearance of channels, especially such as feed irrigation canals; and to supervise the collection of registration fees payable by boat-owners under Act I of 1863.

The chief works carried out in Sind during recent years are the Jāmrao Canal, the largest irrigation work in the province, which cost 72 lakhs; the enlargement and improvement of the Mahi Wah, Nasrat, Dād, and Begāri Canals; the great bridges across the Indus at Sukkur and Hyderābād, which cost together more than 56 lakhs; water-works at Karāchi, Sukkur, and Hyderābād, District offices at Lārkāna, the Empress market at Karāchi, and the Sind College. Extensive works have been carried out in Karāchi harbour since 1886.

Local and municipal. Local boards.

Seven years' experience of the working of Municipal Act XXVI of 1850 had proved that the people of Sind, though unfitted to control their own municipal affairs, were quite ready to contribute funds for public improvements. Accordingly, Mr. (afterwards Sir Bartle) Frere drew up proposals in 1858 to amend that Act, so as to make it lawful to constitute any District or portion thereof a municipality, and to impose a cess on the land tax, and a shop and house tax. Under this scheme the expenditure of funds was to be left in the hands of District officers, assisted by a board for each municipal division thus constituted, corresponding to the modern *tāluka* local board.

The superintendence of large and important works was to vest in the Collector, subject to the control of the Commissioner, and the immediate supervision of minor works devolved upon the heads of villages. The system advocated was neither new nor experimental. It had been in force for some years in parts of the province, and had operated to relieve cultivators from statute labour in road-making and bridge construction. The scheme, however, was ultimately withdrawn in favour of Act XXXIII of 1860, which abolished the land cess and shop tax hitherto levied as a Local fund in parts of Sind. The cess was nevertheless revived soon afterwards in the shape of a levy of one anna per rupee of land revenue, wherever the limit of assessment had not been fixed. In 1863 Government, by executive order, appointed District and *tāluka* committees with definite duties to promote education and the construction of roads. The proceeds of a cess levied at one anna per rupee of land revenue and subsequently legalized by Act VIII of 1865, tolls, ferry fees, and cattle pound receipts were placed under the control of these committees. The members, however, met but rarely, owing to lack of interest on the part of the ratepayers; and save for improvements which the Collectors and their deputies personally supervised and effected, no progress was made till the passing of the Local Boards (Bombay) Act I of 1884, which aimed at carrying out local improvements by local taxation, at decentralizing the management of Local funds, and at giving a larger share in their management to the ratepayers. By 1903-4 there were 6 District and 51 *tāluka* boards in Sind, composed of 706 members, of whom 407 were nominated and 299 elected. All members are elected, except those for 8 *tālukas* in Thar and Pārkar District and for the whole of the Upper Sind Frontier District. The total revenue of the boards rose from 7½ lakhs in 1890-1 to 8 lakhs in 1900-1 and to 8¾ lakhs in 1903-4, and their expenditure from 7⅓ lakhs to 7⅖ and 9 lakhs in the same period. The chief heads of expenditure in 1903-4 were: education (2·7 lakhs), roads (Rs. 92,000), repairs to roads (2·2 lakhs), horse- and cattle-breeding, experimental cultivation and tree planting, and the improvement of rural water-supply and village sanitation. In many places village sanitary committees have been established, under a system whereby half the cost of village sanitation is borne by the villagers, one-third by Local funds, and one-sixth by Government. Though progress in local self-government is necessarily slow, the local boards are all in a sound financial condition, and continue

to effect considerable improvement within the areas of their jurisdiction.

Municipalities. The history of municipal administration in Sind commenced with the establishment by Sir Charles Napier of conservancy boards under Act XXI of 1841 in Karāchi and Hyderābād, shortly after the conquest of Sind (1843). In the rest of the province the responsibility for urban conservancy and the provision of roads, lighting, and water-supply rested with the local *panchāyats* and inhabitants, who, though helped by small grants from the District Magistrates, were unable to effect much progress. In 1852, at the instance of Sir Bartle Frere, Act XXVI of 1850 was applied to Karāchi, and subsequently to Hyderābād, Sukkur, Shikārpur, and other towns. Its provisions were simple, contemplating only the levy of a house tax and town duties, the prevention of nuisances, and the establishment of dispensaries. Act XXVI of 1850 was subsequently amended by Act I of 1871, which obliged municipalities to pay a certain proportion of the local police charges, and was finally repealed by Act VI of 1873, which was not actually applied to Sind until 1878. Bombay Act II of 1884 introduced further changes, by extending the elective principle, exempting all municipalities from police charges, and obliging them to establish and maintain middle and primary schools; and further progress in municipal government has been effected by the passing of Bombay Act III of 1901.

There are 26 municipalities in the province, with a total income in 1903-4 of nearly 25 lakhs and an expenditure of 23½ lakhs, these figures being almost treble the corresponding items in 1884-5. The chief sources of income are octroi, which has risen during the last two decades from 5 lakhs to 15 lakhs, house tax, *halālkhor* cess, water rate, and the sale proceeds of lands. A house tax is perhaps the most unpopular source of income, and is levied in only 5 out of the 26 municipalities; the *halālkhor* or conservancy cess is levied in 14 places and the receipts have largely increased. The diminution of waste areas and the depreciation of the value of building-sites in Karāchi in consequence of plague epidemics has effected a marked reduction in the sale proceeds of waste lands during recent years. A large water-rate revenue in the Karāchi, Hyderābād, and Sukkur municipalities is chiefly earmarked for the repayment of loans and the maintenance of water-works. The larger municipalities evince rather more desire for progress than those in the Districts of the Presidency proper;

but the efficiency of the smaller boards depends chiefly upon the energy of the officials and members.

The total strength of the army stationed in Sind in 1904 was: British troops, 1,666; Indian, 2,049; total, 3,715. This force became under the reorganization scheme of 1904 the Karāchi brigade, and is distributed in cantonments at Karāchi, Hyderābād, and Jacobābād. The volunteer corps include the Sind Volunteer Rifle Corps, the Karāchi Volunteer Artillery, and the North-Western Railway Volunteer Rifles, with a total strength of about 1,000 men. Army.

The total police force consisted, in 1904, of 4,501 officers and men, exclusive of four District Superintendents. In Thar and Pārkar the Deputy-Commissioner, and in the Upper Sind Frontier District an Assistant Superintendent, are in charge of the force. The area includes so large an extent of desert that any general statement of numbers per square mile would only mislead. In Hyderābād District, where the population is thickest, there is one policeman to every 12 square miles and to every 1,403 inhabitants; in Karāchi District, including the capital, there is one policeman to every 14 square miles and to every 538 of the population; while in the desert District of Thar and Pārkar there is one policeman to every 33 square miles and to every 910 inhabitants. The Commissioner is *ex officio* the head of the police, but direct control has recently been transferred to a Deputy-Inspector-General. Police and jails. Police.

Sind possesses no hereditary village police. The local *zamīndārs* assist the police in all criminal cases. The tracking of criminals and stolen animals by their footprints is skilfully performed by village *pagis*, who are paid by the village cess fund. Cattle-lifting and thefts in general are the chief offences with which the police in Sind are called upon to deal.

The Central jail at Hyderābād contains accommodation for 865 prisoners. There are, besides, 2 District jails and 54 subsidiary jails. Two jails at Karāchi and Sukkur are being constructed. The convicts are employed in preparing articles for use or consumption in the jails, in jail repairs, and in manufacturing cloth or carpets. Jails.

Sind stands last among the four Divisions of the Bombay Presidency in regard to the literacy of its population, of whom only about 2·9 per cent. (4·9 males and 0·5 females) are able to read and write. The most backward District is Thar and Pārkar. Education, has, however, made relatively rapid progress since annexation. In 1859–60 the province contained only 20 Government schools; the total number of Government Education.

schools in 1873-4 amounted to 213, of which 26 were for girls. The number of pupils was 12,728, of whom 8,531 were Hindus and only 4,139 Muhammadans. In 1883-4 the schools under the department had increased to 340, with 23,273 pupils. On March 31, 1904, the educational institutions of all kinds were as shown in the table below :—

	Number of institutions.	Scholars.		
		Male.	Female.	Total.
Public.				
Arts colleges	1	122	...	122
Secondary schools	39	4,668	454	5,122
Primary schools	1,306	50,026	8,855	58,881
Training schools	5	121	27	148
Other special schools	8	292	3	295
Private	826	9,839	1,849	11,688
Total	2,185	65,068	11,188	76,256

The Musalmān population showed, until recently, but little interest in education, and, like the Hindus of the province, are indisposed to educate their daughters. There is an Arts college at Karāchi, with an engineering class, and the city contains also a medical class. Hyderābād possesses two training colleges, one for males and the other for females, and a medical class. There are three normal schools in Sind for females: two at Karāchi, and one at Hyderābād. Among private institutions, the European and Indo-European schools at Karāchi and the missionary schools in that town and Hyderābād teach up to the matriculation standard of the Bombay University.

There are printing presses at Karāchi and at numerous other towns. About fifteen newspapers and periodicals are published in Sind, of which the *Khair-khah Sind* has the largest circulation.

Medical. Civil surgeons are stationed at Karāchi, Hyderābād, Sukkur, Shikārpur, and Jacobābād. Numerous charitable dispensaries have been established in all the chief towns. The total number of patients treated in 1904 in the several hospitals and dispensaries was about 440,000, of whom 7,000 were in-patients. There are three hospitals for females in Sind, and a lunatic asylum at Hyderābād. Vaccination is compulsory at Karāchi under Bombay Act IV of 1879, and was made compulsory in Lārkāna in 1899 and in Rohri and Sukkur in

1904. In 1903–4 the Government vaccinators operated upon 82,745 persons.

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Hyderābād District.—District in the province of Sind, Bombay, lying between 24° 13′ and 27° 14′ N. and 67° 52′ and 69° 22′ E., with an area of 8,291 square miles. It is bounded on the north by the State of Khairpur; on the east by Khairpur and Thar and Pārkar District; on the south by the Rann of Cutch; and on the west by the Indus river and Karāchi District. Boundaries, configuration, and hill and river systems.

The District is a vast alluvial plain, 210 miles long by 48 broad. Fertile along the course of the Indus, which forms its western boundary, it degenerates towards the east into sandy tracts, which have recently, by the construction of the Jāmrao and Nasrat Canals, been reclaimed from the desert and promise to become most fertile regions. A small limestone range in the Hyderābād *tāluka*, known as the Ganjo hills, run nearly due south parallel to the river for about 14 miles. The monotony of the great flats is relieved by the fringe of forests which mark the course of the river, and by the avenues of trees that line the irrigation channels branching eastward from the beneficent stream. The Tando subdivision, in the south of the District, has special features in its large

natural watercourses (*dhoras*) and grass-covered depressions (*channs* or *dhandhs*), which retain rain and surplus canal-water for many months and nourish a luxuriant growth of *babūl* trees on their margins. The Indus borders the District for 150 miles.

Geology.

Except in the neighbourhood of Hyderābād city, where there are hills of Kīrthar limestone (middle eocene), the entire District is occupied by the alluvium of the Indus.

Botany.

The fruit trees common in the District are the mango, lime, mulberry, date, plantain, orange, peach, fig, pomegranate, and vine. Of forest trees, the commonest is the *babūl*; others are the *kandi*, *geduri* (*Cordia latifolia*), *ber*, *bahān*, and several kinds of tamarisk. On the road-side and in gardens the *bar* (*Ficus indica*), the *pīpal*, the *tāli* or black-wood, the *siras* (*Albizzia Lebbek*), the *nīm*, the horse-radish tree, and the tamarind are met with. The bush jungle comprises the wild caper, the *khabar* (*Salvadora persica*), the *jhar* (*Salvadora oleoides*) the *ak*, and the camel-thorn or *kas* (*Alhagi maurorum*). Wild grasses useful for fodder are the *khip*, *chabar*, *sawari*, and *makhni*; others useful in mixing mud plaster are the *drab* and *kal*; of reeds, the *kanh*, used in making reed mats, and the bulrush are the most common.

Fauna.

The wolf, fox, jackal, hog deer, antelope, hare, badger, otter, and hog almost complete the list of wild animals. Among birds, the *tilūr* is remarkable, and most of the common kinds of wild duck and water-fowl are to be met with during the cold season. Sand-grouse, quail, and black and grey partridge are common. Venomous reptiles abound, including the cobra, the *kappar* (*Echis carinata*), and the *karait* (*Bungarus caeruleus*). The Indus supplies a great variety of fish, of which the *pala* is said to be peculiar to this river and is caught only between March and August.

Climate and temperature.

Great variations of climate obtain within the District. The hot season lasts from April till July, with an average maximum temperature of 104°. In August and September the heat is tempered by rain, and an immense amount of water is used in cultivation. In October the mercury rises again temporarily, but for the rest of the year the weather is dry and pleasant. In December and January frosts are not uncommon at night; at Guni, on the night of December 26, 1903, the thermometer fell to 22° and on the following night to 27°. Frosts such as these cause widespread damage to the cotton crop. In the north of the District greater extremes of heat and cold are met with, while in the south the proximity of the sea adds moisture

to the air. Fogs are not uncommon in the cold season. In the Tando subdivision fevers are prevalent in consequence of the swamps, especially as the inundation recedes; but on the whole the District in normal years is healthy.

The annual rainfall averages 5·7 inches, the local distribution being: Hyderābād 7, Bādin 6, and Naushahro 3 inches. In 1869 there was an extraordinary fall of 20 inches all over the District. The same year is memorable for an outbreak of epidemic cholera, and in the Hyderābād *tāluka* of severe fever. Rainfall.

The history of Sind since 1768 centres in this District, for all the events of the eighteenth century affected more or less nearly Hyderābād, the modern capital of the province. Under the old name of Nerankot, this city was, in the eighth century, sufficiently important to be the first object of Muhammad bin Kāsim's invasion of Lower Sind. A thousand years later, Ghulām Shāh, the Kalhora chief, burst from the desert, overthrew his usurping brothers, and made Nerankot, then renamed Hyderābād, his capital. Thenceforth this District assumes a foremost place in the history of Sind. Under the Tālpur dynasty it remained the leading state; and within its limits were fought the battles of Miāni and Dabo, which decided (1843) the fate of Sind. Its local history is, however, so mixed up with that of the province, that little could be here said of it separately which has not more properly found a place under the history of SIND. Before 1861, Umarkot (now in Thar and Pārkar District) and a large portion of the eastern delta (now part of the Shāhbandar *tāluka* of Karāchi) were included in Hyderābād. Since 1884 some trifling adjustments of territory have been made with Karāchi and Thar and Pārkar, and in 1894 the *tāluka* of Mīrpur Khās was transferred to the latter. The *parganas* of Kandiāro and Naushahro were resumed by Government in 1852 from the domains of Mīr Alī Murād of Khairpur, on his public conviction for forgery and fraud, and transferred to this District. History.

Numerous tombs with inscriptions are met with throughout the District. The antiquities of special interest at Hyderābād city are the tombs of the Kalhora and Tālpur rulers, richly decorated with coloured tiles in geometric and floral patterns; the colours are cruder and the designs less artistic than in similar work at TATTA in Karāchi District. Archaeology.

The population of the District has increased by 47 per cent. since 1872. The totals at the enumerations were: (1872) 677,994, (1881) 703,637, and (1891) 861,994. According to The people.

the Census of 1901, the total was 989,030, distributed as follows :—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Guni	986	1	158	91,506	93	+ 14	2,154
Bādin	792	...	165	81,790	103	+ 11	731
Tando Bāgo	697	...	141	74,876	107	+ 18	694
Dero Mohbat	604	...	137	46,919	78	+ 12	315
Hyderābād	398	1	98	138,021	347	+ 13	14,516
Tando Alāhyār	690	3	107	87,990	128	+ 15	2,078
Shāhdādpur	644	...	102	73,504	114	+ 25	1,532
Hāla	503	2	103	98,230	195	+ 8	1,235
Sakrand	786	...	109	64,036	84	+ 36	810
Moro	402	...	78	66,641	166	+ 20	1,369
Naushahro	539	...	105	97,506	181	+ 7	3,056
Kandiāro	320	...	69	62,937	197	+ 13	2,158
Nasrat*	930	...	74	5,074	5	...	300
District total	8,291	7	1,446	989,030	119	+ 15	30,948

* This *tāluka* was formed in 1903 from portions of the Moro and Shāhdādpur *tālukās*.

The District contains 7 towns and 1,405[1] villages. The towns are: HYDERĀBĀD CITY, the head-quarters, MATIĀRI, TANDO ADAM, HĀLA, TANDO MUHAMMAD KHĀN, NASARPUR, and TANDO ALĀHYĀR. The density of population is 119 persons per square mile, but varies considerably in different parts. Sindī, the chief vernacular of the District, is spoken by 91 per cent. of the people. Classified according to religion, Hindus form 24 per cent., and Musalmāns 75 per cent.

Castes and occupations.

Among the Hindus, the chief castes are Lohānas (148,000), who are clerks and traders; Dheds (24,000), who are scavengers; and Kolīs (15,000), who are employed in cultivation. Of the Muhammadans, nearly three-fourths are Sindīs, the descendants of the original Hindu population converted to Islām during the Ummayid dynasty of Khalīfs, chiefly represented by the Sammās (226,000) and the Sūmras (36,000). There are 27,000 Muhammadan Jats. The Sindīs have a fine physique, but are timid and lacking in moral fibre; they are looked down upon by the more warlike tribes of the District as natural serfs. Next in point of numbers among the Muhammadans are the Baloch (163,000), subdivided into a great number of tribes, the chief being the Rind (21,000), Dombki (10,000), Khosa (12,000), Jamāli (11,000), Jakrāni (3,000), Lighāri (21,000), Chandia

[1] According to the Census of 1901, 41 new villages have sprung up in the parts of the District that were formerly desert.

(Husaini and Hājī) (22,000), Korai (9,000), Jatoi (14,000), Burdi (Sundar and Hājī) (18,000), Marri (11,000), and Lashāri (13,000). Their leading clan is the Rind, and its members are held by the rest of the community in high respect. Fairer in complexion than the Sindīs, they are also a hardier race; honourable after their own code, and manly in field sports. They are Sunnis by sect. More important, however, as regards social status and personal character are the Pathāns (6,000), found chiefly about Hyderābād and Upper Sind, with the naturalized Arabs (37,000) returning themselves as Alwi (54), Bani Abbās (1,300), Husaini (10,000), Hasani (2,500), Kureshi (9,000), and Kalhora (8,000). They are superior to the foregoing in personal appearance and morale. From their being held in great esteem by the princes of the Kalhora dynasty, they acquired considerable grants of land, which they still possess. The remaining Muhammadan classes worthy of mention are the Muhānos or fishermen (33,000) and the Shaikhs (7,000), the latter being Memons, formerly Hindus who emigrated from Cutch to Sind under Kalhora rule and devoted themselves to trade.

The number of persons supported by agriculture form 64 per cent. of the total population. General labour supports 6 per cent., industry 15 per cent., and commerce one per cent.

Christian missions.

The total Christian population numbers 1,345, of whom 192 are natives, mostly Roman Catholics. The Church Missionary Society has a branch at Hyderābād, where it maintains a high school and a primary school for boys, attended respectively by 56 and 113 pupils. The Zanāna Mission, established at Hyderābād in 1885, has a dispensary for women and 6 primary schools for girls.

General agricultural conditions.

The different kinds of soils prevailing in the District are four in number: soil containing a large admixture of sand, but with good productive capabilities; hard and firm soil; sandy soil; soil strongly impregnated with salt. The greater part of the land in the northernmost division is very fertile. In the Hāla and Tando subdivisions, towards the east, there is much sandy and unprofitable land. In the Tando subdivision, to the south and east, are extensive salt plains.

Chief agricultural statistics and principal crops.

The chief statistics of cultivation in 1903-4 are shown in the table on the next page, in square miles.

The principal crops are: *jowār* (163 square miles), *bājra* (504), rice (319), wheat (138), cotton (143), and oilseeds (149). Wheat and *jowār* are the staples of the north, *bājra* of the central or Hāla subdivision, and rice and *bājra* of the

south. The area under cultivation is gradually increasing, more especially in the Jāmrao tract, where the water-supply is assured. Garden cultivation is limited to the neighbourhood of large towns, where vegetables are grown to a small extent. Sugar-cane is raised in the south. Large advances have been made under the Land Improvements and Agriculturists' Loans Acts, amounting during the decade ending 1903–4 to 7⅓ lakhs, of which one lakh was advanced in 1899–1900, 1·9 lakhs in 1902–3, and one lakh in 1903–4.

Tāluka.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Guni	986	384	161	295	9
Badin	792	254	178	437	...
Tando Bāgo	650	271	145	341	...
Dero Mohbat	723	378	153	237	...
Hyderābād	384	217	101	34	25
Tando Alāhyār	576	287	91	238	...
Shāhdādpur	545	297	110	135	...
Hāla	511	301	122	69	64
Sakrand	494	231	72	115	58
Moro	477	232	93	86	15
Naushahro	545	301	132	81	19
Kandiāro	321	188	71	53	38
Nasrat	931	110	49	582	...
Total	7,935*	3,451	1,478	2,703	228

* This differs from the area shown at the Census of 1901, being based upon more recent information.

Domestic animals.

The domestic animals include the horse, camel, bullock, buffalo, donkey, sheep, and goat. Camels and bullocks are used for draught, and in turning water-wheels for the irrigation of land.

Irrigation.

Agriculture in Hyderābād is chiefly dependent upon artificial irrigation, and is regarded as a lottery in which the cultivator stakes his labour and seed on the chance of getting an exactly suitable flood: if the water rises too high, or not sufficiently high, he loses his crop. The mud flats of the Indus are cultivated without irrigation, as the river recedes. The District contains a number of wells, especially in the Naushahro subdivision, which are utilized in growing *rabi* crops (especially wheat). There are 281 canals, all of which are fed by the Indus and are Government property. In addition to these, numerous smaller canals and watercourses are the property of landholders. Of the Government canals, 35 are main channels, which tap the Indus direct; the remainder are connecting branches. Of the total cultivated area, 1,478 square miles, or 42 per cent., were irrigated in

1903–4. The various sources of irrigation are: Government canals, 1,387 square miles; private canals, 2 square miles; wells, 13 square miles; and 'other sources,' 76 square miles. Nearly 30 per cent. of the irrigated land is supplied by the FULELI CANAL, a large natural channel, which was formerly a branch of the Indus on the left bank of that river, taking off 5 miles north of Kotri. Its course, which is south-easterly, runs through portions of the Tando subdivision. About 101 canals and distributaries are taken directly from it. It is now a perennial canal, and steam-launches have recently been introduced for navigation, which is possible as far as Talhār, 44 miles from Hyderābād, for launches, and 20 miles farther for cargo boats. The JĀMRAO CANAL, recently completed, supplies more than 86 square miles. Of the other canals that supply the District, the chief are: the Nasrat (83 square miles), the Great Marak (61), the Gharo Mahmūdo (104), the Dād (118), the Naulākhi (84), the Nasir Wah (54), and the Sarfrāz (45).

Forests. Forests cover an aggregate area of 228 square miles. They skirt the Indus from the Naushahro down to the Tando subdivision. Many of them are of considerable extent, especially in the Naushahro subdivision, those of Bhour, Bhorti, Khairodero, and Mari being each above 10,000 acres in area. The revenue derived from the forests in 1903–4 amounted to 1·45 lakhs. The chief indigenous trees are the *pīpal*, *nīm*, *tāli* or black-wood, *siras*, *ber*, *bahān*, *bar*, *kandi*, *geduri*, *babūl*, and several kinds of tamarisk.

Minerals. Among the mineral productions of the District may be mentioned *met*, a kind of fuller's earth, which is dug from mines in the Ganjo hills near Hyderābād city. Salt of an excellent quality is found on the Rann of Cutch, but the deposits are too remote to be worked with profit.

Arts and manufactures. The manufactures of the District, once famous, are in a state of decline. The Hyderābād *tāluka* still enjoys much of its old pre-eminence for lacquered work. In the days of the Mīrs, arms made at Hyderābād city were also held in the highest esteem; but, owing to the reduced demand for chain armour, shields, and sabres under British rule, the trade is now in abeyance. In the Hāla subdivision, the special features of the local industries are striped and brilliant cloths known as *sūsīs* and *khes*, and also glazed pottery. The latter work is turned to various ornamental purposes, especially tiling, and is remarkable for excellence of both glaze and colour. In nearly all parts of the District some industry is carried on;

blankets, coarse cotton cloths, camel saddles, rugs, felt, and metal-work being perhaps the commonest products. In 1905 there were 24 cotton-ginning factories in the District, giving employment to nearly 4,200 persons.

Commerce and trade.

The transit trade is considerable, the chief centre of distribution being Hyderābād city. The chief imports are cotton, sugar, spices, and English-made articles, and the chief exports are cotton, wheat, oilseeds, and millet; the three first go to Europe, and the last to Cutch and the desert portion of Thar and Pārkar. Twenty fairs, lasting from three to fifteen days, are held in the District.

Communications. Railways and roads.

The Indus is navigable by country boats at all times of the year. The North-Western Railway connects Hyderābād city with Karāchi and Rohri, crossing the river at Kotri. A branch of this railway, which until 1901 ended at Shādipāli, has been replaced by a narrow-gauge line giving connexion with Bombay by means of the Jodhpur-Bīkaner railway, thus opening up the eastern portion of the District. The southern portion, forming the Tando subdivision, is being connected by a broad-gauge line with Bombay, now open from Hyderābād to Badin. The total length of roads is 2,275 miles, of which 37 are metalled. Of the total length, 28 miles are maintained by the Public Works department, and the remainder by local boards. The chief roads are those from Hyderābād to Kandiāro, and from Hyderābād to Badin. Avenues of trees are maintained on 322 miles.

District subdivisions and staff.

The Collector has a staff of three Assistant Collectors for the Hāla, Naushahro, and Tando subdivisions, and a Deputy-Collector for a portion of the Hāla subdivision. Hāla comprises the Hyderābād, Hāla, Shāhdādpur, and Tando Alāhyār *tālukas*; Naushahro comprises Naushahro, Kandiāro, Moro, Nasrat, and Sakrand; Tando comprises Guni, Badin, Tando Bāgo, and Dero Mohbat with the Digri *mahāl*. A portion of the District irrigated by the Jāmrao Canal is in charge of an officer called the 'Colonization officer,' who is invested with the powers of a Collector and also administers the Nasrat *tāluka*.

Civil and criminal justice.

The District and Sessions Judge, who sits at Hyderābād city, is assisted by four Sub-Judges. The Subordinate Judge at Hyderābād hears suits valued at more than Rs. 5,000 for the whole District, and he alone of the Subordinate Judges is vested with appellate powers. All the Subordinate Judges are empowered to hear 'small causes.' Two Joint Subordinate Judges sit, one at Hāla, the other at Naushahro, who hear such suits as may be transferred to them by the Subordinate Judges

of those two places. The District Judge alone can hear suits to which Government or its officials are parties. The crimes most prevalent are cattle-stealing, theft, and burglary.

Land revenue administration.

The land tenures are simple. Broadly speaking, all land is either 'assessed' or 'alienated.' In the former case, the land is cultivated sometimes by the *zamīndār* himself, but usually by tenants-at-will, who for their labour receive a share of the produce. The occupancy holder (*maurūsi hari*) is really an hereditary cultivator, for his rights are heritable and transferable; and the *zamīndār*, except as regards the actual payment of rent, has no power over him. The tenant-at-will (*ghair maurūsi*) is legally the creature of the *zamīndār*, but the large landholders in the District do not exercise their powers oppressively. The *zamīndār's* own tenure is hardly more definite here than elsewhere in India, and whatever of certainty it possesses is owing entirely to British legislation.

In the second class of lands (the 'alienated'), there are three chief varieties: namely, *jāgīrs*, charitable grants, and garden grants. The *jāgīrs* of the District at the first settlement under British rule were computed at 40 per cent. of the total area, but now only about 8 per cent. of the whole is 'alienated.' They are either permanent and heritable, or granted for two lives only, or merely life grants. The last class is rapidly disappearing. The grants are liable to a cess of 5 per cent. for local purposes, and some pay besides to Government a proportion of the produce assessed according to their class, the maximum being one-fourth. The total area held on charitable grants is very small. Garden grants are held free of assessment so long as the gardens are properly maintained.

Formerly the Government assessment was levied in kind, but since 1851 payment has been received in cash. The land assessment is levied on survey numbers or fields when cultivated, according to rates fixed at the time of the settlement for each kind of irrigation. To prevent a *zamīndār* holding more land than he can cultivate, he is required to pay at least one assessment in five years, whether the land be cultivated or not. The first survey was carried out between 1860 and 1865. The rates were subsequently revised every ten years, simultaneously with the expiry of the irrigation settlements. The latest settlement rates show an increase of 11 per cent. during the ten years ending 1901–2. The current rates per acre are: garden land, Rs. 3–4 (maximum Rs. 5–2, minimum Rs. 2–4); rice land, Rs. 3–2 (maximum Rs. 4–8, minimum Rs. 2–4); and 'dry' land, Rs. 2–1 (maximum Rs. 3–6, minimum R. 1–0).

Collections on account of land revenue and revenue from all sources are given in the following table, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	15,95	35,56	37,87	41,45
Total revenue . .	21,54	47,24	49,27	50,87

Municipalities and local boards. The municipalities are seven in number: namely, HYDERĀBĀD, TANDO MUHAMMAD KHĀN, HĀLA, MATIĀRI, TANDO ALĀHYĀR, TANDO ADAM, and NASARPUR. The local affairs of the District outside the municipalities are managed by the District board and twelve *tāluka* boards, with receipts of 2·5 lakhs in 1903-4. Their expenditure in the same year amounted to 2·9 lakhs, of which 1·2 lakhs was spent on roads and buildings. The Local fund revenue is derived from the cess on land revenue, the 5 per cent. *jāgīr* cess, and other miscellaneous sources.

Police. The police force is in charge of a District Superintendent, with head-quarters at Hyderābād city, and an Assistant Superintendent. There are 25 police stations and 66 outposts in the District. The number of police, including 4 inspectors, is 1,121, of whom 17 are chief constables, 217 head constables, and 883 constables.

Jails. The Central jail at Hyderābād city has accommodation for 865 prisoners, and the District jail at the same place has accommodation for 480. There are also eleven subsidiary jails in the District, in which 304 prisoners can be accommodated. An extra-mural gang of about 362 prisoners, in charge of an Assistant Surgeon, works in the District wherever its services are required. The daily average number of prisoners confined in 1904 was 1,040, of whom 12 were females.

Education. Hyderābād stands twenty-first among the twenty-four Districts of the Presidency in regard to the literacy of its population, of whom 3·13 per cent. (5·4 males and 0·3 females) were able to read and write in 1901. In 1881 there were 98 schools with 5,501 pupils. The number of pupils rose to 14,342 in 1891 and 19,481 in 1901. The District possessed 546 institutions in 1904. Of the 340 institutions classed as public, 4 are high schools, 7 middle schools, 322 primary schools, 3 training schools, and 4 other special schools. These were attended by 19,973 pupils (including 2,814 in private schools), of whom 2,733 were girls. Five are maintained by Government, 125 are managed by local boards, 20 by municipalities, 185 are aided and 5 unaided. The total expenditure on education is

about 2½ lakhs, of which Rs. 40,000 is derived from fees. Of the total amount, 55 per cent. is devoted to primary schools.

There are 17 dispensaries, one civil hospital, and one women's hospital, with accommodation for 169 patients. The number of patients treated in 1904 was 108,914, of whom 2,286 were in-patients, and 7,778 operations were performed. The total expenditure on these institutions, excluding one private dispensary, was Rs. 42,595, of which Rs. 28,144 was met from Local and municipal funds. A lunatic asylum, named after the donor, Sir Cowasjī Jahāngīr, has accommodation for 170 patients, the number in 1904 being 153. Hospitals and dispensaries.

The number of persons successfully vaccinated in 1903-4 was 18,927, representing a proportion of 19 per 1,000, which is below the average for the Presidency. Vaccination.

[A. W. Hughes, *Gazetteer of the Province of Sind* (1876).]

Tando.—Subdivision of Hyderābād District, Sind, Bombay, composed of the GUNI, BADIN, TANDO BĀGO, and DERO MOHBAT *tālukas*.

Guni.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 24° 30′ and 25° 10′ N. and 68° 20′ and 68° 50′ E., with an area of 986 square miles. The population in 1901 was 91,506, compared with 79,940 in 1891. The density, 93 persons per square mile, is below the District average. The *tāluka* contains one town, TANDO MUHAMMAD KHĀN (population, 4,635), the head-quarters; and 158 villages. The land revenue and cesses in 1903-4 amounted to more than 2¼ lakhs. The *tāluka* consists of a level plain, of which the monotony is broken only by two small hills. Considerable irrigation works have been constructed, and others are in contemplation. The principal crops are rice, *bājra*, wheat, barley, and sugar-cane.

Badin Tāluka.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 24° 13′ and 24° 58′ N. and 68° 43′ and 69° 16′ E., with an area of 792 square miles. The population rose from 73,823 in 1891 to 84,790 in 1901. The density, 103 persons per square mile, is a little below the District average. The number of villages is 165, of which BADIN is the head-quarters. The land revenue and cesses in 1903-4 amounted to 2·8 lakhs. The *tāluka*, which is triangular in shape, with its base on the Rann of Cutch, is flat, well watered, and an ideal grazing tract. The principal crops are rice and sugar-cane.

Tando Bāgo.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 24° 35′ and 25° 2′ N. and 68° 46′ and 69° 22′ E., with an area of 697 square miles. The population in 1901 was 74,876, compared with 63,627 in 1891. The

density, 107 persons per square mile, is a little below the District average. The number of villages is 141, of which Tando Bāgo is the head-quarters. The land revenue and cesses in 1903–4 amounted to about 2 lakhs. The *tāluka* is a low-lying and well-watered alluvial plain, apt to suffer from floods rather than from drought. Most of the irrigation is from canals, and the chief crops are rice, cotton, sugar-cane, wheat, and barley.

Dero Mohbat.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 24° 58′ and 25° 18′ N. and 68° 32′ and 69° 19′ E., with an area of 604 square miles. The population in 1901 was 46,919, compared with 41,823 in 1891. The density, 78 persons per square mile, is the lowest figure in any part of the District, except Sakrand. The number of villages is 137, of which Mātli is the head-quarters. The land revenue and cesses in 1903–4 amounted to nearly 2·4 lakhs. The *tāluka* is very uneven, consisting of long undulations of no great height, and is remarkable for large and scattered mounds. The chief crops are rice and *bājra*, cotton and wheat being also grown to some extent. Part of the irrigation is from wells.

Hāla.—Subdivision of Hyderābād District, Sind, Bombay, composed of the Hyderābād, Tando Alāhyār, Shāhdādpur, and Hāla *tālukas*.

Hyderābād Tāluka.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 25° 10′ and 25° 33′ N. and 68° 20′ and 68° 45′ E., with an area of 398 square miles. The population in 1901 was 138,021, compared with 122,507 in 1891. The density, 347 persons per square mile, is largely above the District average. It contains one town, Hyderābād (population, 69,378), the District and *tāluka* head-quarters; and 98 villages. The land revenue and cesses in 1903–4 amounted to about 2 lakhs. A small limestone range, known as the Ganjo hills, runs nearly due south parallel to the Indus for about 14 miles. The *tāluka* is compact in shape, and produces *bājra*, green gram, wheat, and cotton. It is irrigated wholly by canals.

Tando Alāhyār Tāluka.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 25° 7′ and 25° 49′ N. and 68° 35′ and 69° 2′ E., with an area of 690 square miles. The population in 1901 was 87,990, compared with 76,385 in 1891. The density, 128 persons per square mile, exceeds the District average. There are 3 towns—Tando Alāhyār (population, 4,324), the head-quarters, Tando Adam (8,664), and Nasarpur (4,511); and 107 villages. The land revenue and cesses in

1903–4 amounted to nearly 1½ lakhs. The *tāluka* consists of a high plateau, of irregular oblong shape, with wide sandy spaces in the east. The chief crops are *bājra*, sesamum, and tobacco.

Shāhdādpur Tāluka.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 25° 42′ and 26° 16′ N. and 68° 27′ and 69° 0′ E., with an area of 644 square miles. The population in 1901 was 73,504, compared with 58,720 in 1891. The density, 114 persons per square mile, is a little below the District average. The number of villages is 102, of which Shāhdādpur is the head-quarters. The land revenue and cesses in 1903–4 amounted to about 1·8 lakhs. The *tāluka* stands at a high level and is therefore devoid of grass; but it produces the best cotton in the District, and also good *bājra* and tobacco crops.

Hāla Tāluka.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 25° 22′ and 26° 6′ N. and 68° 19′ and 68° 43′ E., with an area of 503 square miles. The population rose from 91,367 in 1891 to 98,230 in 1901. The density, 195 persons per square mile, exceeds the District average. It contains two towns, HĀLA (population, 4,985), the head-quarters, and MATIĀRI (6,608); and 103 villages. The land revenue and cesses in 1903–4 amounted to 1·7 lakhs. The *tāluka*, which lies parallel to the Indus, is at a very high level and is irregular in shape, narrowing in the middle to barely 7 miles in breadth. The principal crops are *bājra*, tobacco, and cotton.

Naushahro.—Subdivision of Hyderābād District, Sind, Bombay, composed of the SAKRAND, MORO, NAUSHAHRO FĪROZ, KANDIĀRO, and NASRAT *tālukas*.

Sakrand.—*Tāluka* of Hyderābād District, Sind, Bombay, lying between 26° 2′ and 26° 35′ N. and 67° 53′ and 68° 31′ E., with an area of 786 square miles, including the *petha* of Shāhpur. The population rose from 49,447 in 1891 to 64,036 in 1901. The density is 84 persons per square mile. The number of villages is 109, of which Sakrand is the head-quarters. The land revenue and cesses in 1903–4 exceeded 1·1 lakhs. Much of the land in the eastern portion is covered with sandhills. The *tāluka* has considerable jungles which give shelter to wolves and wild hog. The chief crops are wheat, tobacco, gram, rape-seed, and sesamum.

Moro.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 26° 23′ and 26° 55′ N. and 67° 52′ and 68° 20′ E., with an area of 402 square miles. The population in 1901 was 66,641, compared with 57,646 in 1891. The density is 166 persons per square mile. The number of villages is 78, of

which Moro is the head-quarters. The land revenue and cesses in 1903-4 amounted to about 1·3 lakhs. The *tāluka* has now lost its barren and sandy tracts, which have been transferred to Nasrat. The chief crops are *jowār*, barley, indigo, gram, and rapeseed.

Naushahro Fīroz.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 26° 35′ and 27° 8′ N. and 67° 56′ and 68° 25′ E., with an area of 539 square miles. The population in 1901 was 97,506, compared with 90,976 in 1891. The density, 181 persons per square mile, greatly exceeds the District average. The number of villages is 105, of which Naushahro Fīroz is the head-quarters. The land revenue and cesses in 1903-4 amounted to about 2·3 lakhs. The western portion of the *tāluka* is covered with forests, which have suffered of late years from encroachments of the river. About two-thirds is irrigated by canals, aided by wells. The chief crops are wheat, gram, *jowār*, and indigo.

Kandiāro Tāluka.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 26° 55′ and 27° 14′ N. and 68° 2′ and 68° 30′ E., with an area of 320 square miles. The population in 1901 was 62,937, compared with 55,733 in 1891. The density, 197 persons per square mile, is, after Hyderābād *tāluka*, the highest in the District. The number of villages is 69, of which KANDIĀRO is the head-quarters. The land revenue and cesses in 1903-4 amounted to more than 1½ lakhs. The surface of the *tāluka* has the appearance of two large land waves with three depressions; and throughout its length on the river bank it is protected by a belt of forests. About two-thirds of the total is irrigated by canals, aided by wells. The chief crops are wheat, *jowār*, and gram.

Nasrat.—*Tāluka* in Hyderābād District, Sind, Bombay, recently (1903) formed from the Moro, Sakrand, and Shāhdādpur *tālukas*, and lying between 26° 4′ and 26° 37′ N. and 68° 23′ and 68° 56′ E., with an area of 930 square miles. The population (1901) is 5,074, living in 74 villages, of which Nawābdiah is the head-quarters. The land revenue and cesses in 1903-4 amounted to about Rs. 86,000. The prevailing feature of the *tāluka* is its sandhills; and prior to 1903 it consisted of a stretch of desert dependent on the rainfall. It is now irrigated by the Nasrat Canal, and produces *bājra*, sesamum, and cotton.

Badīn Village.—Head-quarters of the *tāluka* of the same name in Hyderābād District, Sind, Bombay, situated in 24° 38′ N. and 68° 54′ E., 62 miles from Hyderābād city and 41

from Tando Muhammad Khān. Population (1901), 2,076. The Hindus are principally shopkeepers, and the Muhammadans agriculturists and weavers. Badin was founded about 1750 by a Hindu named Sawālo. The old town (on the opposite bank of the Mirwah canal) was totally destroyed by Shāh Nasīrdīn, otherwise Madad Khān, the famous Pathān, in his raid into Sind. There is a large local trade in grain, *ghī*, sugar, molasses, cloths, metals, tobacco, skins, cotton, and drugs, with an annual fair in June, lasting a fortnight. The village contains a dispensary.

Hāla Town.—Head-quarters of the *tāluka* of the same name in Hyderābād District, Sind, Bombay, formerly known as Murtazābād, situated in 25° 49′ N. and 68° 28′ E. Population (1901), 4,985. The local trade consists chiefly of grain, piece-goods, *ghī*, cotton, and sugar. Hāla has long been famous for its glazed pottery and tiles, made from a fine clay obtained from the Indus, mixed with powdered flints. The ornamentation is brilliant and tasteful. *Sūsīs* or striped trouser-cloths, for which Hāla is also celebrated, are manufactured. The new town was built about 1800, in consequence of the old site, 2 miles distant, which is said to have been founded in 1422, being threatened with encroachment by the Indus. Khudābād, 2 miles from New Hāla, was once a favourite residence of the Tālpur chiefs, and is said to have rivalled Hyderābād in size and population. Among the antiquities round which the new town has grown up are the tomb and mosque of a Pīr or Muhammadan saint who died in the sixteenth century, and in whose honour a fair, largely attended by Muhammadans from all parts of the province, is held twice a year. The British Government contributed Rs. 1,000 to the repair of this tomb in 1876. Hāla is situated on the Aliganj canal, and is immediately connected with the trunk road at two points. The municipality dates from 1859, and had an average income during the decade ending 1901 of Rs. 6,132. In 1903-4 the income was Rs. 7,250. The town contains a dispensary, a Subordinate Judge's court, and a boys' school.

Hyderābād City (*Haidarābād*).—Head-quarters of Hyderābād District, Sind, Bombay, situated in 25° 23′ N. and 68° 25′ E., on the North-Western Railway. Population: (1872) 43,088, (1881) 48,153, (1891) 58,048, and (1901) 69,378, including 4,588 in cantonments. Of the population in 1901, 24,831 were Muhammadans, 43,499 Hindus, and 710 Christians. The city ranks seventh in the Presidency in number of inhabitants. Upon the site of the present fort is supposed to have stood the

ancient town of Nerankot, which in the eighth century submitted to Muhammad bin Kāsim Sakifi. In 1768 the present city was founded by Ghulām Shāh Kalhora; and it remained the chief town of Sind until 1843, when, after the battle of Miāni, it surrendered to the British, and the capital was transferred to Karāchi. The city is built on the most northerly hills of the Ganjo range, a site of great natural strength, $3\frac{1}{2}$ miles east of the Indus, with which it is connected by the high road to Gidu Bandar. In the fort, which covers an area of 36 acres, are the arsenal of the province, transferred hither from Karāchi in 1861, and the palaces of the ex-Amīrs of Sind. Besides 4 high schools with 1,319 pupils in 1903-4, Hyderābād contains a training college for males with an attached technical class (121 students), a normal class for females (3), a training college for mistresses (6), a midwifery school (3), an agricultural school (109), an engineering class (34), and a medical school (43). The total number of schools is 50, of which 6 are for girls. The city contains a civil hospital and a dispensary.

Hyderābād is now plentifully supplied with water, which is pumped up from the Indus by powerful machinery, located on the river bank at Gidu. Thence the water passes along an aqueduct raised on masonry arches into two large reservoirs or depositing tanks, situated about 500 yards from the river bank, each capable of holding over 1,000,000 gallons. From these tanks the water flows by gravitation to within a short distance of the foot of the rocky plateau on which the fort is built; from here the water is pumped up into a tank inside the fort, whence it is distributed to the city and cantonments by gravitation.

Hyderābād, as the historic capital of Sind, is the centre of all the provincial communications—road, telegraphic, postal. From the date of its foundation (1768), its manufactures—ornamented silks, silver- and gold-work, and lacquered ware—have been the chief in the province, and during the last thirty years have gained prizes at the industrial exhibitions of Europe. The garrison is composed of British and Native infantry, 2 batteries of artillery, and an ammunition column. The barracks are built in twelve blocks, with hospitals, bazar, &c., to the north-west of the city. The only noteworthy antiquities are the tombs of the Kalhora and Tālpur rulers. The Residency, memorable for its gallant defence by Sir James Outram against the Baloch in 1843, which was situated 3 miles from Hyderābād, no longer exists.

The municipality was established in 1853, and had an average income during the decade ending 1901 of Rs. 2·2 lakhs. In 1903–4 the income and expenditure amounted to 2·7 and 2·8 lakhs respectively. The chief sources of income are octroi (Rs. 1,30,000) and water rate (Rs. 22,000); and the chief heads of expenditure are general administration and collection of taxes (Rs. 39,000), public safety (Rs. 7,400), water-supply and drainage (Rs. 22,000), conservancy (Rs. 37,000), hospitals and dispensaries (Rs. 15,000), public works (Rs. 13,000), and education (Rs. 18,000). The income of the cantonment fund in 1903–4 was Rs. 43,000, and the expenditure Rs. 33,800.

Kandiāro Village.—Head-quarters of the *tāluka* of the same name in Hyderābād District, Sind, Bombay, situated in 27° 3′ N. and 68° 17′ E., on the Nasrat Canal. Population (1901), 3,916. The principal occupation of the inhabitants is agriculture, but the Hindus are engaged in trade, which is mainly in grain and cloth. The village is said to have been built during the reign of Jahāngīr. Before it was founded another was in existence close by, called Patoipur, which was abandoned owing to an unusual rise of the inundation waters. The site of the present village was then chosen as being more elevated; and having at the time a large number of *kandi* trees growing upon it, the place took, it is supposed, from this circumstance the name of Kandiāro. Kandiāro has a technical school supported by the local board with an average daily attendance of 80 students, six other schools, of which two are for girls, and a dispensary.

Matiāri (*Matāri*).—Town in the Hāla *tāluka* of Hyderābād District, Sind, Bombay, situated in 25° 36′ N. and 68° 29′ E., on a slight eminence, 20 miles south of Hāla town, and 16 miles north of Hyderābād. Population (1901), 6,608. The local trade includes grain, oilseeds, cotton, silk piece-goods, and sugar. Matiāri is said to have been founded in 1322, and possesses, besides a fine Jāma Masjid, built in 1803, the tombs of two saints of renowned sanctity. At these shrines annual fairs are held in September and October, and each is attended by from 2,000 to 3,000 Muhammadans. The municipality, established in 1868, had an average income during the decade ending 1901 of Rs. 9,000. In 1903–4 the income was Rs. 3,650. The town contains a dispensary and four schools, of which one is for girls.

Miāni ('Fishing village').—Village in the Hyderābād *tāluka* of Hyderābād District, Sind, Bombay, 6 miles north of Hyderābād city. Population (1901), 962. It was here that

Sir Charles Napier, on February 17, 1843, with a force of 2,800 men and 12 guns, encountered a Baloch army numbering 22,000, strongly posted on the banks of the Fuleli. The enemy were totally routed, 5,000 men being killed and wounded, and the whole of their ammunition, standards, and camp taken, with considerable stores and some treasure. A monument marks the scene of the battle, and on the eastern side of the pillar are inscribed the names of the officers, and the number of rank and file, who fell. The village contains three schools, one of which is for girls.

Nasarpur.—Town in the Tando Alāhyār *tāluka* of Hyderābād District, Sind, Bombay, situated in 25° 31′ N. and 68° 39′ E. Population (1901), 4,511. Nasarpur was formerly famous for its weaving industries, and cotton goods are still manufactured in some quantity on hand-looms; but the trade of the place is insignificant. The town is of very ancient date, and is said to have been founded in A.D. 989. The municipality was constituted in 1860, and had an average income during the decade ending 1901 of about Rs. 6,000. In 1903–4 the income was also Rs. 6,000. The town contains a courthouse, a dispensary, and a boys' school.

Tando Adam (or Adam-jo-Tando).—Town in the Tando Alāhyār *tāluka* of Hyderābād District, Sind, Bombay, situated in 25° 46′ N. and 68° 42′ E., on the North-Western Railway. It was founded about 1800 by one Adam Khān Marri, whence its name. Population (1901), 8,664. There is some trade in silk, cotton, grain, oil, sugar, and *ghī*. The municipality, established in 1860, has an average income of about Rs. 15,000. Tando Adam contains three cotton-ginning and pressing factories employing 636 operatives, a courthouse, five schools, one of which is for girls, and a dispensary.

Tando Alāhyār Town (or Alāhyār-jo-Tando).—Headquarters of the *tāluka* of the same name in Hyderābād District, Sind, Bombay, situated in 25° 27′ N. and 68° 46′ E., on the Hyderābād-Balotra branch of the Jodhpur-Bīkaner Railway. Population (1901), 4,324. The local trade includes sugar, ivory, silk, cloth, cotton, oil, and grain. It was founded about 1790 by a son of the first sovereign of the Tālpur dynasty. Under the Tālpurs, the town attained considerable commercial importance; but it has declined in modern times, especially since the opening of the railway in 1861 between Kotri and Karāchi, which diverted the trade of northern Sind. Cotton is extensively grown in the neighbourhood, while raw silk, metal pots, and ivory are largely imported; silk-weaving and

ivory-work form the chief industries. The principal building is the fort. The municipality, established in 1856, had an average income during the decade ending 1901 of about Rs. 15,000. In 1903–4 the income was also Rs. 15,000. There are four schools, one of which is for girls, one cotton-ginning and pressing factory employing 140 operatives, and a dispensary.

Tando Muhammad Khān.—Head-quarters of the Guni *tāluka* of Hyderābād District, Sind, Bombay, situated in 25° 8′ N. and 68° 35′ E., on the right bank of the Fuleli canal, 21 miles south of Hyderābād city. Population (1901), 4,635. As the seat of an Assistant Collector, the town contains a courthouse and the usual public buildings. The municipality, established in 1856, had an average income during the decade ending 1901 of about Rs. 18,000. In 1903–4 the income was Rs. 12,500. The local trade includes rice and other grain, silk, metals, tobacco, dyes, saddle-cloths, matting, and drugs; and there is a transit trade in rice, *jowār*, *bājra*, and tobacco. The manufactures comprise copper- and iron-ware, earthenware, silk, thread, blankets, cotton cloth, shoes, country liquor, and articles of wood. Tando Muhammad Khān is said to have been founded by Mīr Muhammad Tālpur Shāhwāni, who died in 1813. The town contains a dispensary and three schools, one of which is for girls.

Karāchi District.—District in Sind, Bombay, lying between 23° 35′ and 26° 22′ N. and 66° 42′ and 68° 48′ E., with an area of 11,970 square miles. It is bounded on the north by Lārkāna; on the east by the Indus and Hyderābād District; on the south by the sea and the Kori river; and on the west by the sea and the State of Las Bela (Baluchistān), the river Hab forming for a considerable distance the line of demarcation. The District, which covers a large tract of land stretching from the mouth of the Indus to the Baluchi boundary, differs considerably in appearance from the general level of Sind by its possession of a hilly western region, lying in the *mahāl* of Kohistān and the *tāluka* of Karāchi. Numerous lateral ranges of considerable height here push forward into the plain from the KĪRTHAR mountains, and diversify the usually monotonous aspect of the arid surface by their spurs and offshoots. From this lofty and barren tract, intersected by deep and wide valleys, the general aspect of the country, as it runs south-eastward in a vast sloping plain, becomes more and more level, until in the extreme south the Indus delta presents a broad expanse of low, flat alluvium, stretching away to the horizon in one unbroken sheet, varied

Boundaries, configuration, and hill and river systems.

only by the numerous creeks communicating with the ocean. Large forests of *babūl* and other trees fringe the river banks, and impart a somewhat fresher appearance to the otherwise dreary landscape. Elsewhere, however, the features of the Sind delta stand unrelieved in their naked monotony.

Apart from the INDUS and the HAB rivers, there are only a few minor torrents in the District. These take their rise in the western hills, but consist of dry watercourses for the greater portion of the year, filled only on the rare occasions when heavy rains fall on the higher ranges in which they have their sources. The Hajāmro and Baghar are offshoots of the Indus, the former now constituting the chief channel to the sea. At PĪR MANGHO there are hot springs, situated among barren and rocky hills, and famous for their healing qualities, as well as for the crocodiles in an adjacent enclosure. Other hot sulphur springs are to be found at Lakhi in the Kotri *tāluka*, which attract a number of pilgrims every year.

Geology. In Karāchi District the highly interesting geological series of Sind is most completely developed. It consists of upper and lower Manchhar beds of upper and middle miocene age, corresponding with the Siwāliks of Baluchistān and of the Himālayas; and the Gāj group containing highly fossiliferous marine beds, whose age is lower to middle miocene. A second series is the upper Nāri or oligocene, consisting of alternating fresh-water and marine strata; and this gives way in places to the lower Nāri or upper eocene, a highly fossiliferous Nummulitic limestone, and to the upper limestone and shales of the Nummulitic Kīrthar group, of middle eocene age, which corresponds with the Spīntangi and Ghāzij of Baluchistān. One also finds a lower limestone and shale group, likewise Nummulitic and classed as Kīrthar, but not known outside of Sind, to which nearly all the Kīrthar outcrops in Karāchi District belong. The upper Rānikot, another highly fossiliferous marine group, containing in its upper beds the oldest Nummulitic strata known in India, is approximately on the same horizon as the London Clay, and alternates with the lower Rānikot—fluviatile beds with lignites and fossil remains of plants. Other features of the series are representatives of the Deccan trap basalts; the *Cardita beaumonti* beds, which are lowermost eocene or uppermost Cretaceous; and lastly the hippuritic limestone. All these rocks outcrop, each in turn, in a succession of gentle synclinal and anticlinal folds, whose structure recalls that of the Jura mountains. There is scarcely another part of the world that contains so

complete a development of the Tertiary. The southern part of the District is covered by the Indus alluvium.

Among fruit trees, which are not numerous, the mango, *ber*, apple, date, fig, plantain, and pomegranate are noticeable. The timber is almost entirely *babūl*; and the *timur* or mangrove, found near the salt creeks, provides fodder for camels and firewood for steamers. Of maritime plants, the *chāwara* and *kaudel* are common on the coast. The tamarisk grows in patches which are peculiarly dense in portions of the Shāhbandar *tāluka*; while the casuarina has been planted with some success at Karāchi. Botany.

The wild animals found in the hilly portions are the leopard, hyena, wolf, jackal, fox, antelope, ibex, and *gad* or wild sheep. Crocodiles are found at Magar Talao; and they are also numerous in the pools of the Hab river, in the Indus, and in some of the large canals and mountain torrents. Fauna.

The climate of Karāchi city and the neighbouring country, which is in every direction open to the sea-breeze, possesses a great superiority over that prevailing throughout the remainder of Sind. The hill country of Kohistān is also cooler in summer and warmer in winter than is the case in the plains. In the north, on the other hand, near the barren LAKHI range of hills, the heat often becomes insupportable. The hot season commences about the middle or end of March, reaches its maximum in the month of July, and lasts till the end of August, when the temperature once more becomes tolerably cool. The annual temperature averages 79°. The rainfall at Karāchi is slight and fluctuating, the annual average hardly exceeding 5 inches. Sometimes one or two years pass with scarcely a shower. The average maximum rainfall elsewhere is 9 inches in the Karāchi *tāluka*, and the minimum 5 inches at Mānjhand. Climate, temperature, and rainfall.

Alexander the Great, towards the close of his Indian expedition, dispatched Nearchus, doubtless from some point (suggested to be at Tatta) in this District, to explore the Persian Gulf. The date 713 marks the first Arab invasion of the District, which later resulted in the formation of the local Arab principality of Mansūra, nearly corresponding with modern SIND. Between 1019 and 1026, the invasions of Mahmūd of Ghazni took place and paved the way for the supremacy of the Sūmra dynasty, whose founder was a titular vassal of the Ghaznivids; and in 1333 the Sammā tribe from Cutch settled first at Sehwān in Lārkāna District and afterwards at Tatta. Close under the Makli hills stood Samui, History.

the capital of the Sammā princes, originally a Hindu or Buddhist race. Converted to the faith of Islām about the close of the fourteenth century, they continued to retain their practical autonomy, in spite of a nominal allegiance tendered to Fīroz Tughlak of Delhi; and the town of TATTA, where they generally resided, became in after years the chief centre of population and commerce for the whole of Sind.

In 1521 Shāh Beg, founder of the Arghūn dynasty, completely defeated the last Sammā prince, and established his own claim to the sovereignty of the lower Indus valley; but, after a continuance of only thirty-four years, the Arghūn line became extinct in the person of Shāh Hasan, son of the founder, who died childless in 1554. Mirza Jānī Beg, the last local ruler of Tatta, was defeated by an army of the Mughal emperor Akbar in 1592; and the District, together with the rest of Sind, became incorporated with the Multān *Sūbah* in the imperial organization. The country of Tatta, however, was made over to Jānī Beg, who entered the Mughal service after his defeat, and compromised for his independence by accepting his former territories in *jāgīr*. Continued struggles for the governorship of Tatta led Jahāngīr to abolish the hereditary viceroyalty, and to appoint instead special lieutenants holding office during the imperial pleasure. The town of Karāchi appears to have attained little importance under either the native dynasties or the Mughal administration. Its rise into notice began with the period of the Tālpur Mīrs, in succession to the Kalhora princes, who had usurped power on the break-up of the Mughal empire. They were the first to recognize the value of the harbour for commerce, and in 1792 recovered Karāchi from the Khān of Kalāt; but soon afterwards they divided into three branches, each ruling independently in a separate part of Sind. The British endeavoured to enter into friendly treaties with the Mīrs; but their jealousy and mistrust of the motives of the Government prevented any cordial understanding, and in 1838 they offered considerable opposition to the march of British troops on their way to the first Afghān War. After Shāh Shujā was placed on the throne, the Mīrs were required to pay the arrears of tribute due to the Afghān ruler and to permit the establishment of a British force in Sind. Failure having been made in payment of the stipulated tribute, the Mīrs were required to cede certain territory. The army, however, resisted this loss of independence, and attacking the Hyderābād Residency precipitated the conflict which ended in the

annexation of Sind to the British dominions. The District passed to the British in 1843. Karāchi town grew rapidly under the new administration, and became the principal port of North-western India. The District, as at first constituted, did not embrace the same area as at present; in 1861 a portion of the Indus delta, composing the present Shāhbandar *tāluka*, was added to it from Hyderābād, while in 1901 three *tālukas* were taken from it to form part of the new District of Lārkāna.

Archaeology. Among the remains of interest in the District may be mentioned those situated in the town of TATTA. The town is of great antiquity, and possesses a number of tombs, inscriptions, mosques, and a fort. The Jāma Masjid is decorated with coloured tile-work of the well-known Multān type. The design and shades of colour are very beautiful. The Dabgar Masjid has a fine central *mihrāb*, carved with delicate surface tracery. The old fort at Tatta was commenced about 1699, but was never completed. The ruined city of BHAMBORE is an interesting archaeological relic. In the delta of the Indus are numerous sites of ruined cities, such as Lāhori, Kākar, Bukera, Samui, Fathbāgh, Kāt Bāmbhan, Jūn, Thari, Badin, and Tūr, as well as the remains of Dāro and Lohan. Among ruined forts once of importance are those of Charlo Chakar and Ranijī.

The people. In 1872 the population was 442,177; in 1881, 495,860; in 1891, 571,951; and in 1901, 607,828. Since the date of the last Census, a new District has been created by the transfer of certain *tālukas* from Shikārpur and Karāchi Districts. The population of the present area of Karāchi District (446,513) shows an increase of 8 per cent. over the population of the same area in 1891. The population is distributed, as shown in the table on the next page, in nine *tālukas* and the Kohistān tract.

There are 5 towns—KARĀCHI, the capital of the province and head-quarters of the District, KETI, KOTRI, MĀNJHAND, and TATTA—and 628 villages. The density of population varies according as the tract concerned happens to be desert, barren hill, or cultivable. Of the population, 77 per cent. are Musalmāns, 21 per cent. Hindus, and 1 per cent. Christians. Sindī is spoken by 340,837 persons, or 76 per cent. of the total.

Castes and occupations. The Muhammadans consist mainly of Sindī tribes, of whom half (112,000) returned themselves as Sammās and 9,000 as Sūmras, suggesting some connexion with the once-powerful dynasties known by those names. The Muhānas or fisher-

men number 31,000. Of foreign tribes, the Baloch are represented by 28,000, and the Brāhuis by 10,000. There are 17,000 Jats. Among Hindus, the trading caste known as Lohāna or Luvāna is alone of numerical importance, with 35,000. Brāhmans, Rājputs, and Bhātias scarcely number 3,000 each. The low castes are represented by 8,000 Dheds. Agriculture supports 45 per cent. of the population; industries, commerce, and the professions 24, 2, and 2 per cent. respectively.

Tāluka or *Mahāl*.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kotri*	1,485	2	62	57,530	39	+ 2	2,287
Kohistān *mahāl*	1,806	...	2	12,877	7	− 20	141
Karāchi	1,678	1	14	136,297	81	+ 10	9,590
Tatta	1,229	1	35	41,745	34	+ 12	1,425
Mīrpur Sakro	1,137	...	74	27,600	24	+ 6	354
Ghorābāri	566	...	51	26,237	61	+ 14	431
Keti *mahāl*		1	42	8,499			
Mīrpur Batoro	269	...	62	37,116	138	+ 5	583
Sujāwal	267	...	65	33,251	125	+ 13	530
Jāti	2,145	...	117	31,752	15	+ 14	310
Shāhbandar	1,388	...	104	33,609	24	+ 14	323
District total	11,970	5	628	446,513	37	+ 8	15,974

* Including the Mānjhand *mahāl*, for which separate statistics are not available.

Christian missions.

Of the 2,707 native Christians in 1901, 2,500 were Roman Catholics and 129 belonged to the Anglican communion. Karāchi is the head-quarters of the Church of England Mission, the Church of England Zanāna Mission, a Roman Catholic mission, and the Methodist Episcopal Mission. The first named maintains three boys' schools; the second, nine girls' schools and a small orphanage; the third, four boys' schools and four girls' schools, including two poor schools; the fourth, two boys' schools. The Roman Catholic and Zanāna Missions have branches at Kotrī and Jherruck respectively.

General agricultural conditions.

In the Karāchi *tāluka* cultivation exists only on a few isolated spots, and depends upon wells, springs, or natural rainfall. Here the chief crops are *jowār*, *bājra*, barley, and sugar-cane, grown chiefly on the Malir plain, distant about 12 miles from Karāchi city, and easily accessible by rail. In the delta *tālukas* of Tatta and Shāhbandar, where numerous creeks and channels intersect the alluvial flats, rice forms the staple crop; but wheat, sugar-cane, millets, cotton, and tobacco are also grown. In the barren hills of Kohistān, agriculture is

but little practised, except within embankments erected to impound the scanty rainfall or along watercourses fed by small hill streams; and the nomad population devotes itself almost entirely to grazing cattle in the southern plains, where abundance of forage springs up spontaneously after the lightest fall of rain.

The chief statistics of cultivation in 1903-4 are shown below, in square miles:— Chief agricultural statistics and principal crops.

Tāluka.	Total.	Cultivated.	Irrigated.	Waste.	Forests.
Kotri	3,305	329	51	79	56
Karāchi	1,678	63	...	84	...
Tatta	1,215	68	32	65	51
Mīrpur Sakro	1,137	104	35	100	...
Ghorābāri	566	102	47	240	11
Mīrpur Batoro	269	100	63	65	39
Sujāwal	267	82	53	69	47
Jāti	2,145	97	50	132	...
Shāhbandar	1,388	158	49	1,055	8
Total	11,970*	1,103	380	1,889	212

* According to the latest information.

Of the area cropped, 22 square miles were under wheat, 13 under barley, 245 under rice, and 100 under millets (*jowār* and *bājra*). Rice is the principal crop, except in the Kohistān tract and the *tālukas* of Karāchi and Kotri. Millets take the place of rice in Kotri. Among the pulses *mūng* is an important crop. During the decade ending 1903-4 nearly 9 lakhs was advanced to cultivators under the Land Improvement Loans Act and the Agriculturists' Loans Act, of which 1·8 lakhs was lent in 1899-1900, and 1·3 lakhs in each of the years 1900-1 and 1901-2. The money is usually employed on erecting embankments (*bands*) and clearing canals.

The chief domestic animals are camels, buffaloes, and cattle. The buffaloes are commonest in the deltaic swamps, and produce *ghī* famous all over Western India. The Karāchi cows are noted as good milkers, and many of them are shipped to Bombay for sale. The best of these cattle are bred within a radius of 30 or 40 miles from Karāchi city, chiefly in the hill tracts. Domestic animals.

Of the total cultivated area of 1,103 square miles, 380 square miles, or 34 per cent., were irrigated in 1903-4. The chief sources of irrigation are: Government canals, 118 square miles; private canals, 206; and 'other sources,' 56. Throughout Sind nearly every canal is fed by the Indus; and in Irrigation.

1903–4 nearly 34 per cent. of the total irrigated area of the District was supplied by the Pīnjari Canal, fed by the Shāhbandar embankment of the Indus. The Baghar, a small canal on the right bank, irrigated nearly 43 square miles, the Kotri 24, and the Kokwari 23 square miles. Of the irrigated land, 87 per cent. is sown for the *kharīf* or autumn harvest. There are only 27 wells in the District used for irrigation.

Fisheries. Sea-fishing is carried on by the Muhāna tribe of Musalmāns, who reside for the most part in hamlets near Karāchi. The principal fish caught on the coast are sharks, rays, and skates. The pearl oyster is found at several places, and the Mīrs conducted pearl operations on their own account. Under British rule, the right has been let for a small sum, but the pearls are very inferior in size and quality, so that the industry has greatly declined during the last twenty-five years. At present practically no pearl fishing is carried on. Considerable fisheries also exist in the river Indus, chiefly for the fish known as *palla*, which are annually leased out by Government for about Rs. 20,000.

Forests. The forest lands include tracts in the Jherruck forest division, south of Kotri, producing timber and fuel, with an area of 212 square miles in charge of a divisional forest officer. A portion of the Hyderābād forest division, measuring 48 square miles and situated north of Kotri, also lies within Karāchi District. The forest lands are situated on the banks of the Indus, for the most part in the Shāhbandar *tāluka*. The principal trees are the *babūl* and tamarisk, the latter being found chiefly in the Shāhbandar jungles. Forest receipts in 1903–4 amounted to Rs. 52.

Minerals. Good building stone occurs among the arenaceous limestones of the Gāj group near Karāchi.

Manufactures. Local manufactures are confined to cotton cloth, silk scarves, carpets, rugs, and the ordinary metal and earthenware. Besides a few factories in Karāchi city, there are few industries of importance. Tatta is noted for *lungīs*, used by women as robes or shawls. Extensive salt deposits of the purest description occur in the Shāhbandar *tāluka*, on the Sirganda creek, a branch of the Indus, accessible for small craft of from 50 to 60 tons burden. Salt is manufactured from salt water by artificial means at the Maurypur works on the sea-coast, a few miles from Karāchi. Out of 15 factories, 5 are cotton-gins and presses, employing 356 persons, and the rest include 2 metal foundries, 2 bone-mills, an arsenal, a printing press, and a railway workshop.

The traffic centres mainly in the city and port of KARĀCHI.

The staple exports consist of grain, principally wheat, cotton, wool, hides and skins; and the chief imports are sugar, kerosene, piece-goods, liquor, and metals. Karāchi District contains three seaports: namely, Karāchi, KETI, and Sirganda. The average value of the foreign trade, which is practically confined to Karāchi port, for the five years ending 1902-3 was: imports, 505 lakhs; exports, 712 lakhs; total, 1217 lakhs. In 1903-4 the value of the imports was 591 lakhs, and of the exports 1345 lakhs; total, 1936 lakhs, or 719 lakhs above the average of the previous five years. The average value of the coastwise trade for all ports for the five years ending 1902-3 was: imports, 340 lakhs; exports, 251 lakhs; total, 591 lakhs. In 1903-4 the coastwise trade was returned as follows: imports, 375 lakhs; exports, 188 lakhs; total, 563 lakhs, or 28 lakhs below the average of the previous five years, which resulted from a decrease in the exports to Bombay of raw cotton, wheat, and rapeseed. The coast-borne trade includes reimports and re-exports from and to Karāchi, which are included in the values of the foreign trade given above.

Commerce and trade.

Besides being the port of call of various steamer lines, chief among which is the British India Steam Navigation Company, Karāchi is connected with two important railway systems and a number of trade routes from Afghānistān, Kalāt, and Central Asia. The North-Western Railway links the District with the Punjab and the United Provinces, while the Jodhpur-Bīkaner Railway supplies railway communication with Thar and Pārkar District and, by a circuitous route, with Bombay. A line running for 54 miles from Hyderābād city to Badin, the head-quarters of the Badin *tāluka* of Hyderābād, was opened in 1904. This line is to form part of the proposed direct railway between Sind and Bombay, which will run through Karāchi District and pass either through Cutch or through Thar and Pārkar District. Three important trade routes converge at Karāchi, placing it in direct communication with the interior of Sind, with Las Bela, and with Kalāt. The total length of metalled roads in the District outside the municipal towns is 7 miles, and of unmetalled roads 1,321 miles. The total cost of their maintenance in 1903-4 was Rs. 19,631, of which Rs. 16,700 was paid from Local funds. Avenues of trees are maintained along 185 miles.

Communications. Railways and roads.

The District has three subdivisions, comprising nine *tālukas* and three *mahāls*, in charge of two Assistant Collectors and a Deputy-Collector. The nine *tālukas* are each under a *mukhtiārkār*, corresponding to the *māmlatdār* of the Bombay Presi-

District subdivisions and staff.

dency proper. The three *mahāls* are Keti Bandar, Mānjhand, and Kohistān. The city of Karāchi forms a separate charge under the City Deputy-Collector.

Civil and criminal justice.

The functions of the former District and Sessions Judge are now performed by two Additional Judicial Commissioners, who, together with the Judicial Commissioner, compose the Chief Court in Sind. Subordinate to them are a Judge of the Small Cause Court and a Subordinate Judge, sitting at Kotri. Karāchi city is under the separate charge of a City Magistrate, and there is a Cantonment Magistrate for the Karāchi and Manora cantonment. Magisterial work in the District is, as usual, carried on by the administrative staff. Cattle-lifting is a very prevalent form of crime, and, as in other Districts of Sind, blood-feuds arising from intrigues with women are common among the hill tribes.

Land revenue administration.

Before the introduction of the present settlement rates into all *tālukas* between 1876–7 and 1889–90, there were only two rates of land revenue levied in the District: that is to say, garden and 'dry-crop' rates, the former at R. 1 and the latter at 8 annas per acre. The present revenue system of Karāchi is adapted to the system of cultivation, depending almost entirely upon irrigation. The irrigation settlement (*see* SIND) is in force in all *tālukas* of the District, and is fixed for a term of ten years. Kohistān is settled under a special lease system, which should expire in 1909, but the lease has been extended for another five years. Under this system the landholder is allowed to cultivate on payment of a fixed annual rent, amounting to about 8 annas per acre. Owing to the precarious water-supply of this tract, which is entirely dependent upon the rainfall, the irrigation settlement has not been introduced into Kohistān. The average land revenue rates per acre in the District are: garden land, Rs. 3–9 (maximum Rs. 4, minimum Rs. 2–10); rice land, Rs. 2–14 (maximum Rs. 3–8, minimum Rs. 2–4); and 'dry' land, Rs. 2–0 (maximum Rs. 2–8, minimum Rs. 1–4).

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	7,21	13,05	12,02	8,53
Total revenue . .	22,29	33,01	69,22	60,06

Municipalities

There are five municipalities in the District: namely, KARĀCHI, KOTRI, MĀNJHAND, TATTA, and KETI BANDAR.

Elsewhere, local affairs are managed by the District and *tāluka* boards, the total receipts of which in 1903–4 were nearly 1½ lakhs, the principal source of income being the land cess. The expenditure in the same year amounted to one lakh, of which Rs. 30,000 was spent upon roads and buildings. and local boards.

The District Superintendent of police has two Assistants and seven inspectors. There are nineteen police stations in the District. The total number of police in 1904 was 1,142: of whom 23 were chief constables, 184 head constables, and 935 constables. The District contains a District jail (at Karāchi), 11 sub-jails, and 6 lock-ups. The daily average number of prisoners in 1904 was 254, of whom 2 were females. A new jail with accommodation for 374 prisoners is under construction. Police and jails.

Of the total population, 3·3 per cent. (5·6 males and 0·5 females) were literate in 1901. As in other Sind Districts, education is backward compared with the Presidency proper, and such advance as has been made is more observable in Karāchi city than in the towns and villages in the interior. The least backward *tālukas* are Kotri and Tatta. In 1880–1 there were 65 schools, attended by 4,581 pupils. The number of pupils rose to 13,856 in 1891 and to 16,602 in 1901. In 1903–4 there were 297 educational institutions, public and private, including an Arts college at Karāchi city, 6 high schools, 8 middle schools, 2 training schools, 2 special schools, and 186 primary and elementary. These institutions were attended by 13,605 pupils, including 3,028 girls. Of the 205 institutions classed as public, 2 were managed by Government, 69 by the local boards and municipalities, while 134 were aided. The great majority of the pupils are in primary schools. Attempts have recently been made by the Muhammadan community to encourage education, and a society has been formed to promote this object. The total expenditure on education in 1903–4 was 2½ lakhs, of which about Rs. 50,000 was derived from fees. Of the total, 55 per cent. was devoted to primary education. Education.

The District has 2 hospitals and 13 dispensaries and other institutions, containing accommodation for 186 in-patients. The existing civil hospital at Karāchi is being replaced by a more modern building. In these institutions, 104,000 cases were treated in 1904, of whom 1,928 were in-patients, and 3,473 operations were performed. The expenditure was Rs. 64,000, of which Rs. 30,000 was met from Local and municipal funds. Hospitals and dispensaries.

Vaccination. The number of persons successfully vaccinated in 1903-4 was 12,359, representing a proportion of 27 per 1,000, which exceeds the average for the Presidency. Vaccination is compulsory only in Karāchi city.

[A. W. Hughes, *Gazetteer of the Province of Sind* (1876, new edition in the press).]

Kotri Subdivision.—Subdivision of Karāchi District, Sind, Bombay, consisting of the KOTRI *tāluka* (including the Mānjhand and Kohistān *mahāls*).

Kotri Tāluka.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 24° 58′ and 26° 22′ N. and 67° 55′ and 68° 29′ E., with an area of 3,291 square miles, including the Mānjhand and Kohistān *mahāls*. The population decreased from 72,224 in 1891 to 70,407 in 1901. The density is much below the District average, being only 21 persons per square mile. There are 64 villages and 2 towns, KOTRI (population, 7,617), the head-quarters of the *tāluka*, and MĀNJHAND (2,862). The land revenue and cesses in 1903-4 amounted to Rs. 94,000. The *tāluka* is divided into two distinct portions: a hilly plateau known as Band Virah Tappa, which forms a part of Kohistān; and a narrow strip of alluvial soil lying between the hilly tract and the Indus. Five canals supply water for irrigation, and the principal crops are *jowār*, *bājra*, rice, *til*, cotton, and wheat.

Tatta Subdivision.—Subdivision of Karāchi District, Sind, Bombay, composed of the KARĀCHI, TATTA, MĪRPUR SAKRO, and GHORĀBĀRI *tālukas*.

Karāchi Tāluka.—South-western *tāluka* of Karāchi District, Sind, Bombay, lying between 24° 46′ and 25° 39′ N. and 66° 42′ and 67° 53′ E., with an area of 1,678 square miles. The population increased from 124,274 in 1891 to 136,297 in 1901. The density is 81 persons per square mile. It contains one city, KARĀCHI (population, 116,663), the head-quarters of the District and of the *tāluka*; and 14 villages. The land revenue and cesses in 1903-4 amounted to Rs. 32,010. The aspect of the *tāluka*, excepting the portion bordering on the sea, is hilly, especially towards the north and west where ranges of lofty and barren hills run from north to south, with wide valleys between them. A small chain of hills runs within the *tāluka* for some miles parallel to the Hab river, terminating in the headland of Ras Muār or Cape Monze, a landmark for sailors making the port of Karāchi. After a heavy fall of rain these hills afford abundant pasturage. The *tāluka* contains no canals, but is drained by

several mountain torrents, the chief of which are the Malir and Layāri. Salt marshes occur along the sea-coast, and abound with mangroves and other trees. Much of the fertile portion of the *tāluka* is devoted to raising vegetables and fruit for the Karāchi market. Agriculture depends chiefly upon wells and springs, the principal crops being *jowār*, *bājra*, barley, and sugar-cane, which are chiefly grown at Malir.

Tatta Tāluka (*Thato*).—*Tāluka* of Karāchi District, Sind, Bombay, lying between 24° 31′ and 25° 27′ N. and 67° 34′ and 68° 24′ E., with an area of 1,229 square miles. The population in 1901 was 41,745, compared with 37,086 in 1891. The *tāluka* contains one town, TATTA (population, 10,783), the head-quarters; and 35 villages. The land revenue and cesses in 1903–4 amounted to Rs. 62,000. The *tāluka* is about 60 miles long, the alluvial portion consisting of a narrow irregular tract between the Indus and the Kohistān *mahāl*. The northern portion is rather hilly, and in the south the Malki hills skirt the western side. The *tāluka* contains several *dhands* or lakes, fed by rainfall, which occasionally overflow and do considerable damage. Irrigation is derived from six main canals and their branches. The chief crops are rice, sugar-cane, wheat, barley, *jowār*, *bājra*, and *til*.

Mīrpur Sakro.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 24° 14′ and 24° 51′ N. and 67° 9′ and 67° 55′ E., with an area of 1,137 square miles, of which nearly half is *kalar* land. The population in 1901 was 27,600, compared with 26,064 in 1891. There are 74 villages, but no town. The village of Mīrpur Sakro is the head-quarters. The land revenue and cesses in 1903–4 amounted to Rs. 60,000. The western half of the *tāluka* is almost entirely uninhabited and uncultivable. Towards the sea, tidal creeks break the coast-line and form extensive mangrove swamps. Irrigation is derived chiefly from the Baghar canal, with ten branches, and from two smaller canals. The chief crops are barley, rice, *bājra*, and *til*.

Ghorābāri.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 23° 55′ and 24° 34′ N. and 67° 22′ and 68° 2′ E., with an area of 566 square miles. The population rose from 30,518 in 1891 to 34,736 in 1901. The *tāluka* contains one town, KETI (population, 2,127), and 93 villages. It includes the Keti *mahāl*, the population of which is 8,499. The head-quarters are at Kotri Allahrakhio. The land revenue and cesses in 1903–4 amounted to Rs. 78,000.

The soil of the *tāluka*, which is narrow and straggling in shape, is alluvial; and in the south, below the town of Keti Bandar, there is a wide expanse of mud flats, liable to frequent flooding by the sea. Irrigation is provided by the Baghiar, Ghar, Marho, Nasir Wah, and Makri Wah canals. The principal crop is rice; *bājra*, barley, and sugar-cane are also grown.

Shāhbandar Subdivision.—Subdivision of Karāchi District, Sind, Bombay, composed of the MĪRPUR BATORO, SUJĀWAL, JĀTI, and SHĀHBANDAR *tālukas*.

Mīrpur Batoro.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 24° 36′ and 25° 1′ N. and 68° 9′ and 68° 26′ E., with an area of 269 square miles. The population in 1901 was 37,116, compared with 35,196 in 1891, dwelling in 62 villages, of which Mīrpur Batoro is the head-quarters. The density is 138 persons per square mile, and this is the most thickly populated *tāluka* in the District. The land revenue and cesses in 1903–4 amounted to over 1·4 lakhs. The *tāluka* lies on the east of the Indus, which forms its northern boundary. It is shaped somewhat like a parallelogram, and is an alluvial plain, the northern portion being watered by canals fed directly by the Indus, and the central and southern parts by distributaries of the Pīnjari Mulchand canals. The finest rice, known as *sugdasi*, is grown here, owing to the soil being very fertile. *Jowār* and *bājra* are also grown.

Sujāwal.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 24° 27′ and 24° 53′ N. and 68° 1′ and 68° 18′ E., with an area of 267 square miles. The population rose from 29,501 in 1891 to 33,251 in 1901. There are 65 villages, but no town; Sujāwal is the head-quarters. The land revenue and cesses in 1903–4 amounted to Rs. 1,10,000. The *tāluka* lies on the left bank of the Indus, which forms its western boundary. The chief feature is a wide expanse of perennial marshes, forming a chain of depressions running from north and west to south as far as the Gungro canal. Elsewhere, the soil is the usual alluvial loam deposited by the Indus. Irrigation is derived either direct from the Indus or from the Pīnjari Canal; and the most important crops are rice, *bājra*, *mūng*, and gram.

Jāti.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 23° 35′ to 24° 38′ N. and 68° 1′ to 68° 48′ E., with an area of 2,145 square miles. It contains 117 villages, but no town; Mughalbhin is the head-quarters. The population

in 1901 was 31,752, compared with 27,895 in 1891. The density is only 15 persons per square mile; and this is the most thinly populated *tāluka* in the District, owing to its barren and unproductive soil and the large tracts of *kalar* land and salt deposits which it contains. The land revenue and cesses in 1903-4 amounted to nearly a lakh. The southern portion is a maze of tidal creeks, and farther inland there is a salt plain, while the north-eastern portion is chiefly cultivable waste. Irrigation depends upon four canals, which directly tap the Indus. The chief crops are rice, *bājra*, barley, *til* and other oilseeds.

Shāhbandar Tāluka.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 23° 41′ and 24° 25′ N. and 67° 32′ and 68° 26′ E., with an area of 1,388 square miles. The population increased from 28,246 in 1891 to 33,609 in 1901. The number of villages is 104, of which Ladiun is the head-quarters, but the most important place is SHĀHBANDAR. The land revenue and cesses in 1903-4 amounted to 1·1 lakhs. The *tāluka* contains large tracts of *kalar* lands and salt deposits. The soil is the usual alluvial loam, mixed with sand; but in the south, where the Indus outflow meets the incoming tide, a deposit of soft mud, locally known as *bhal*, appears. The *tāluka* is irrigated by more than ten canals; and the chief crops are *jowār*, *bājra*, rice, barley, and *mūng*.

Bhambore (*Bambura*).—Ruined city near the village of Gharo, in the Mīrpur Sakro *tāluka* of Karāchi District, Sind, Bombay, situated in 24° 40′ N. and 67° 41′ E. Population (1901), 127. It was stormed by the Muhammadans on their first invasion in A.D. 711. Tradition preserves its old name as Debal, Dewal, or Dawal, 'the temple'; but it is believed that before the Musalmān invasion it was known under the name of the Mahara or Mansāwar. The ruins, as also the numerous coins found on the site, attest its former population and importance.

Karāchi City.—Capital of Sind, Bombay, and head-quarters of the District and *tāluka* of the same name, situated in 24° 51′ N. and 67° 4′ E., at the extreme northern end of the Indus delta, near the southern base of the Pab mountains and close to the border of Baluchistān. It is 993 miles from Bombay by rail, the distance in nautical miles being 483. Two routes connect the city with Lahore, by Sukkur, and by the Kotri-Rohri railway, the distance by each being about 800 miles. Population has increased rapidly: (1872) 56,753, (1881) 73,560, (1891) 105,199, and (1901) 116,663, of whom 8,019

resided in the cantonment. Muhammadans number 60,003; Hindus, 48,169; Christians, 6,158; and Pārsīs, 1,823.

Situation and description. The bay of Karāchi is formed by the projecting point of Manora Head, the extremity of a reef 10 miles in length, which supplies a natural barrier against the Arabian Sea. The opening of the bay between Manora and the opposite sanitarium of Clifton has a width of about 3½ miles; but the mouth is blocked by a group of rocky islets, known as the Oyster Rocks, as well as by what was formerly the larger island of Kiamāri, now part of the mainland owing to the action of sand-drifts. The harbour stretches for 5 miles northward from Manora Head to the narrows of the Layāri river, and about the same distance from the old town of Karāchi on the eastern shore to the extreme western point. Only a small portion of this extensive area, however, is capable of accommodating large vessels. Manora Head, the first object visible to a voyager approaching Karāchi from the sea, is crowned by a lighthouse, having a fixed light 148 feet above sea-level, and visible for 20 miles in clear weather. The point was formerly guarded by a fort, said to have been first erected in 1797; but this has now yielded place to a modern fortification, the port and pilot establishment, the buildings in connexion with the harbour improvements, and a portion of the Indo-European Telegraph department. Besides a library, billiard-room, and European school, Manora possesses an English church, intended for the crews of vessels frequenting the harbour. It has recently been made a cantonment, and is to be constituted a military sanitarium in place of Ghizri, lately abandoned.

On the opposite side of the mouth, Kiamāri forms the landing-place for all passengers and goods bound for Karāchi, and has three piers. A road running along the Napier Mole, three miles long, connects the island with the city and mainland, and is traversed by the East India Tramway. The North-Western Railway also extends to Kiamāri by two lines, one of which follows the mole, while the other and older one takes a more circuitous route, to the south, by the edge of a lagoon, the waters of which are passed through the mole by a screw-pile bridge, 1,200 feet in length, erected in 1865 at a cost of about 5 lakhs, so as to allow them to flow uninterruptedly into the harbour as a means of scouring the channel. At the northern extremity of this bridge, and running in a westerly direction, stands the native jetty, built of stone at an expense of 4¼ lakhs. At the end of the mole, on the main-

land side, the custom-house runs right across the road, which pierces it by five arches, all traffic being thus intercepted.

Two principal thoroughfares lead from the custom-house to the Karāchi cantonment, known respectively as the Bandar and the McLeod Roads, at the junction of which stands a handsome clock-tower, the public memorial to Sir William Merewether. The oldest portion of the town is situated along the former route, close to the harbour, containing the most thickly populated quarter in Karāchi. The municipality has widened and paved the streets, and effected other improvements which must conduce to the health of the inhabitants, who are chiefly Hindu and Muhammadan merchants. The Layāri, a river merely in name, as it contains water only three or four times a year, separates this quarter from the Layāri suburb. On the McLeod Road are situated the Chief Court, the Bank of Bombay, the National Bank of India, the city railway station, the general post office, the telegraph office, the Mansfield import yard, Messrs. Herman & Co.'s ironworks, and three important cotton-presses—the McLeod Road presses, owned by the Sind Press Company, capable of turning out daily 350 pressed bales of cotton; the Tyābjī presses, erected in 1865 at a cost of 2¼ lakhs, and turning out 250 bales; and the Albert presses, leased to the Sind Press Company, and turning out 390 bales. This quarter also contains the Edaljī Dinsha dispensary, several schools, the Sind College, a new Hindu temple, and most of the offices belonging to European merchants. The Afghān *sarai*, intended for the use of caravans from Kandahār, which was rebuilt by the municipality in 1873 at a cost of Rs. 20,000, covers an area of about 3 acres. Nearer to the cantonment, a number of bungalows stand on the intervening space, while the civil lines skirt the cantonment itself to the eastward. The military quarter, which is situated to the north and east of the city proper, consists of three portions: the dépôt lines, the artillery lines, and the European infantry lines. The dépôt lines are the oldest military portion of Karāchi, and were originally intended to supply accommodation to troops passing up-country from the sea or vice versa. Here also is the arsenal. The public garden, distant about half a mile from cantonments, covers an area of 40 acres, neatly laid out with trees and shrubs, and contains an excellent zoological collection.

Buildings.

The architecture of Karāchi is essentially modern and Anglo-Indian. The Anglican Church of the Holy Trinity is situated just outside the cantonment. It stands in a large

open space, 15 acres in extent, and consists of a heavy, ungainly Italian nave, with an ugly tower, the upper portion of which has recently been removed as unsafe. St. Patrick's Roman Catholic school, formerly a church, is a fine stone building, capable of accommodating 40 boarders and 200 day-scholars. The European and Indo-European school, known as the Karāchi Grammar School, founded in 1854, under the auspices of Sir Bartle Frere, then Commissioner of Sind, occupies a handsome stone structure in the dépôt lines. The other chief modern institutions include a Muhammadan college, the Presbyterian Church of St. Andrew, Christ Church and the Anglican Mission schools, the Napier Barracks, the Sind Club, the Empress market, the Pārsī Vīrbaijī school, and the post office. The Frere Hall, a municipal building, stands near the Sind Club. It was opened in a somewhat unfinished state in October, 1865, up to which date $1\frac{3}{4}$ lakhs had been expended upon its erection. This hall, which is a comparatively good specimen of slightly adapted Venetian Gothic, contains the Karāchi general library. A fine statue of the Queen-Empress Victoria, erected by public subscription in the grounds of Frere Hall, was unveiled by His Royal Highness the Prince of Wales in March, 1906. Government House, the residence of the Commissioner of Sind, is situated in the civil quarter, and consists of a central building with two wings, approached by five separate carriage drives. Though commodious and comfortable in its interior arrangements, the exterior can lay no claim to architectural beauty. It was originally built by Sir Charles Napier when governor of the province, and has now been improved and fitted with an electric light and fan installation.

Climate and health. The climate of Karāchi, owing to the prevalence of sea-breezes during eight months of the year, is more healthy than any other in Sind. The low situation of the city, and the near neighbourhood of marsh land, render the atmosphere moist and warm; but the heat during the hottest months cannot compare with that experienced in the interior. The mean annual temperature, calculated from data for twenty-five years ending 1901, may be stated at 65° in January, 85° in May, and 75° in November. The hottest weather occurs in April, May, and June, though September and October are also often close and sultry. The annual rainfall averages about 5 inches. The first case of plague occurred early in December of 1896, the locality attacked being the old town quarter, and nearly 3,400 persons died in the first year. The

total mortality from plague until the end of March, 1904, was 19,010.

Karāchi came into British possession in 1843. The town may be regarded as almost a creation of British rule, its extensive commerce, splendid harbour works, and numerous flourishing institutions having all sprung up since the introduction of settled administration. Before 1725 no town whatever appears to have existed on the site; but a place named Kharak, with a considerable commerce, is mentioned as lying on the other side of the Hab river at the confluence of the river and the sea. The entrance to Kharak harbour having become blocked with sand, a migration was made to a spot near the present head of Karāchi harbour, and at that time (1729) called Kalāchi Kun; and in time, under Jām Daria Khān Jokia, trade began to centre upon the convenient harbour. Cannon brought from Muscat protected the little fort, and the name of Karāchi, supposed to be a corrupt form of Kalāchi, was bestowed upon the rising village. The hopeless blocking up of Shāhbandar harbour shortly afterwards drove much of its former trade and population to Karāchi. History.

Under the Kalhora princes, the Khān of Kālat obtained a grant of the town, which he garrisoned from his own territory. Within the short period 1792–5, three Baloch armies appeared before the town; but only on the third occasion did the Tālpur chief of Hyderābād, who led the Baloch troops, gain possession by force of arms. A fort was built at Manora, at the mouth of the harbour. The Tālpur chiefs made considerable efforts to increase the trade of Karāchi, so that in 1838 the town and suburbs had a population of 14,000, half of whom were Hindus. The houses were all flat-roofed, and built of mud, very few of them having more than one storey: each house had its *bādgir* or wind-catcher for the purposes of ventilation. The government under the Mīrs was vested in a civil and military official, the Nawāb, who ruled despotically over the town and neighbourhood.

Even before the period of British rule, the commerce of Karāchi had attained to some importance, owing to the value of the Indus river as a channel of communication. Nevertheless, the sparse population of the country, combined with the short-sighted policy of its rulers, prevented it from reaching its proper development. Under the Tālpur Mīrs, all imports were subjected to a 4 per cent. and all exports to a 2½ per cent. duty. In 1809 the customs revenue amounted to Rs. 99,000; by 1837 it had risen to Rs. 1,74,000. In the Commerce and trade.

latter year the whole trade of the port was valued at about 40 lakhs, the following being the principal items: imports—English silk, broadcloth, chintz, &c., Bengal and China raw silk, slaves, dates, sugar, ivory, copper, spices, and cotton; exports—opium, *ghī*, indigo, wheat, madder, wool, raisins, and salted fish. Slaves came chiefly from Muscat, and consisted of negroes or Abyssinians. Opium to the extent of 500 camel-loads came from Mārwār, and was exported to the Portuguese town of Damān. Almost all the goods imported into Sind were then consumed within the province, only Rs. 1,50,000 worth being sent across the frontier.

In 1843–4, the first year of British rule, the trade of Karāchi, including Keti and Sirganda, had a total value of only 12 lakhs, due to a decline in the opium trade, which had steadily fallen since 1837, when its value was estimated at 16 lakhs. The second year of British rule saw a rise to 23, the third to 35, and the fifth to 44 lakhs. By 1852–3 the total value had risen to 81 lakhs. In 1857–8 the exports nearly overtook the imports, the two standing respectively at 107 and 108 lakhs. The American Civil War gave an enormous impetus to the trade of Karāchi, owing to the demand for Indian cotton which it created in European markets; and in 1863–4 the total value of the trade amounted to no less than 6 crores: namely, imports 2 and exports 4 crores. The restoration of peace in America, however, brought about a lower price for cotton in Lancashire, and the trade of Karāchi gradually returned to what was then considered its normal level. The total value sank to 4 crores in 1867–8, and 3½ crores in 1873–4; but by 1882–3 it had risen again to 7 crores, and in 1892–3 to 11 crores.

In 1903–4 the trade of Karāchi port, exclusive of Government stores and treasure, had increased in value to 24·9 crores (of which 5·5 represented coasting trade): namely, imports 9·6 crores, and exports 15·2 crores. The main cause of the growth is due to the annually increasing exports of wheat and other food-grains, and oilseeds, which are brought by rail from irrigated tracts of Sind and the Punjab. The following were the chief articles of foreign import, with their values, in 1903–4: apparel, 14 lakhs; cotton piece-goods, 2 crores; cotton twist and yarn, 10 lakhs; manufactures of wool, 20 lakhs; hardware and cutlery, 13 lakhs; wines and liqueurs, 9 lakhs; spirits, 11 lakhs; metals, wrought and unwrought (chiefly copper, iron, and steel), 43 lakhs; provisions, 19 lakhs; sugar, 102 lakhs; machinery and mill-work, 10 lakhs; mineral oil, 22 lakhs; and

treasure, 44 lakhs. Total imports from foreign ports (including treasure), 5·9 crores.

From the United Kingdom Karāchi imports cotton manufactures, railway materials, liquors, coal and coke, machinery, metals, provisions, apparel, drugs, and medicines; from Bombay, cotton piece-goods and twist, treasure, metals, silk, sugar, tea, jute, spices, dyes, woollen manufactures, coco-nuts, manufactured silk, liquors, fruit, and vegetables; from the Persian Gulf, dried fruits, treasure, wool, grain, and horses; from the coast of Makrān, wool, provisions, grain, and pulses; from Calcutta, jute, grain, and pulses; and from Russia, mineral oil.

The following list shows the value of the exports to foreign ports in 1903–4: raw cotton, 2¾ crores; grain and pulses, 7¾ crores, of which 7½ crores represented wheat; hides and skins, 47 lakhs; oilseeds, chiefly rape and *til*, one crore; raw wool, 52¼ lakhs; bones, 17 lakhs. Total value of exports (including treasure), 13½ crores.

To the United Kingdom Karāchi exports cotton, wool, wheat, oilseeds, skins, and bones; to France, wheat, cotton, bones, hides, gram, gingelly, and rapeseed; to Germany, wheat, cotton, hides, bones, and seeds; to Japan, cotton; to Russia, indigo and cotton; to Bombay, Cutch, and Gujarāt, cotton, grain, indigo, seeds, skins, fish-maws, and shark-fins; to Mauritius, grain and pulses; to Persia, rice; to Madras, rice and skins; and to China, raw cotton.

The inland trade of Karāchi includes wheat from the Punjab and the United Provinces, cotton from the Punjab, a large quantity of wool, dried fruits, and horses from Kandahār and Kalāt; while camels, bullocks, and donkeys bring in firewood, grass, *ghī*, palm-leaves, hides, &c., from Las Bela and Kohistān.

Harbour and shipping.

The harbour of Karāchi during the period of the Tālpur Mīrs, and for the first few years after British annexation, was capable of accommodating only small native craft. Steamers and large ships anchored outside Manora Point, whence men and stores were conveyed in boats up the river, as far as the tide permitted, and then transferred into canoes, which carried them through a sea of liquid mud to a spot near the site of the existing custom-house. In process of time, however, it became apparent that the bar did not interpose so great an obstacle as was originally supposed, and that square-rigged vessels of a certain draught could cross it with safety. In 1854, under the Commissionership of Sir Bartle Frere, the Napier Mole road or causeway, connecting Karāchi with the island of

Kiamāri, was completed, which offered additional inducements to ships for visiting the harbour.

In 1856 a scheme for improving the harbour by deepening the water on the bar was submitted for the opinion of Mr. James Walker, an eminent London engineer, who estimated the cost of works to provide an ample width of passage, with a depth of 25 feet at neap tides, at 29 lakhs. After much debate and intermissions, owing to partial failures, the principal part of the works—the Manora breakwater, 1,503 feet in length—was commenced in 1869, and completed in 1873 at a cost of 7 lakhs. It affords complete shelter to the entrance channel (eastern) over the bar during the south-west monsoon, and, combined with other works, has already led to the deepening at the entrance to 20 feet at low-water spring-tides. The rise and fall is about 8 feet. Further progress was ensured by the creation in 1880 of a Harbour Board, for the purpose of levying shipping dues, which eventually was transformed into the Port Trust by Act VI of 1886. Among the works carried out by the board are the Kiamāri and East Channel groynes or stone banks, which direct and confine into one channel the tidal flow; extensive dredging, boring, and submarine blasting operations; the Merewether Pier, opened in 1882, to accommodate one steamer and provide facilities for trooping; the Erskine wharf, 2,000 feet long, and the James wharf, 1,900 feet long, which can together accommodate ten large steamers and are linked for cargo purposes with the North-Western Railway by a commodious railway yard; a special pier for oil-steamers, to serve the four bulk-oil installations at Kiamāri; and the Mansfield import yard, with warehouse accommodation for all goods landed at the wharves. In the harbour entrance, within shelter of the breakwater, there is a minimum depth of 24½ feet of water, which is maintained, and will eventually be improved, by dredging during the fair season. Further developments are under consideration, while the reclamation of a large area and the construction of two new steamer berths, with a minimum depth of 28 feet, are now being carried out.

In 1847–8 the number of vessels which entered the harbour was 891, all native craft, with a total burden of 30,509 tons. In 1903–4, 384 vessels (of which 174 were steam-vessels) entered Karāchi harbour with cargoes from foreign ports; gross tonnage, 301,109 tons. In the same year 515 vessels (of which 344 were steam-vessels) cleared with cargoes for foreign ports; gross tonnage, 720,919 tons. From the ports

on the coasts of India and Burma 1,311 vessels entered Karāchi laden with cargoes; tonnage, 567,436 tons. For the ports on the coasts of India and Burma 1,177 vessels left Karāchi laden with cargoes; tonnage, 392,463 tons. The affairs of the port are managed by the Karāchi Port Trust, the income of which in 1903-4 was about 19 lakhs and the expenditure 13 lakhs. During the three years ending 1904-5, the average income expanded to more than 21 lakhs and the expenditure to 15½ lakhs. The surplus is devoted to paying off the debt of 66 lakhs, which has now been reduced to 58½ lakhs. The principal steamship lines trading to Karāchi are the Ellerman, Wilson, Strick, Hansa, Austrian Lloyd, British India, and Bombay Steam Navigation Company.

Municipality and cantonment. The Karāchi municipality was established in 1852, and had an income during the decade ending 1901 of about 12 lakhs. In 1903-4 the income was 15 lakhs, and the expenditure 14 lakhs. The chief heads of municipal revenue are: octroi (10 lakhs, excluding refunds of 6 lakhs), tax on houses and lands (Rs. 53,000), and rents (Rs. 27,000); and the chief items of expenditure are administration and collection charges (7 lakhs), water-supply and drainage (Rs. 62,000), conservancy (Rs. 1,50,000), hospital and dispensary (Rs. 15,000), public works (Rs. 1,63,000), and education (Rs. 49,000). The management of the cantonment is in the hands of a committee, which had an income and expenditure of about Rs. 18,500 in 1903-4. The normal strength of the Karāchi garrison is 1,300 men, and of the volunteer forces 800 men.

Water-supply. The difficulty of water-supply long formed one of the chief drawbacks to Karāchi, most of the wells being too brackish for drinking purposes. Formerly the supply was mainly derived from wells tapping a subterranean bed of the Layāri. The inhabitants of Kiamāri, and the shipping in the harbour, obtained water from carts, which brought it up from 'camp[1].' For the purposes of ice manufacture, water was formerly imported by rail from Kotri. A scheme for constructing an underground aqueduct, 18 miles in length, from the Malir river at a cost of 5 lakhs was completed in 1882, and Karāchi is now in possession of a pure water-supply. The capital outlay on this undertaking, including pipes for distributing the water to the city, Kiamāri, and the cantonment, amounted to 17 lakhs; and the annual charges are 3 lakhs, of which

[1] The modern portion of Karāchi, comprising the Sadr bazar, civil lines, &c., is locally known as 'camp,' as opposed to the old town proper and Kiamāri.

Rs. 32,600 represents maintenance charges. Karāchi also has an efficient system in operation for disposing of sewage.

Education. Education is carried on by the Sind College, the Government high school, Anglo-vernacular schools, the Government vernacular school, and several female and other minor establishments. The total number of boys' schools is 48, with a daily attendance of 6,239, and of girls' schools 20, with an attendance of 1,861. The Dayārām Jethmal Sind Arts College was established in 1887. It is attended by 120 students, some of whom are accommodated in a hostel attached to it. A law class prepares students for the first LL.B. The Nārāyan Jagannāth high school prepares students for the matriculation and school final examination. It is managed by Government, and Rs. 10,000 is annually contributed from Provincial revenues. Among the special schools may be mentioned the Muhammadan high school (*Madrasat-ul-Islām*), the normal class for the training of mistresses, and the engineering class. Newspapers or periodicals published at Karāchi include four English (the *Sind Gazette*, the *Sind Times*, the *Phoenix*, and the *Karāchi Chronicle*) and four native (in Sindī, Gujarātī, and Persian).

Hospitals. The city possesses a civil hospital, a Dufferin Hospital for females, and four dispensaries. These institutions afforded relief in 1904 to 70,155 persons, of whom 1,543 were in-patients treated in the civil hospital. The Dufferin Hospital, built by Mr. Edaljī Dinsha in 1901, treated 10,017 patients in 1904, of whom 206 were in-patients. A sick hospital, now called the military hospital, was established in 1869, in connexion with the cantonment, and in 1901 the cantonment hospital was opened in the Preedy quarter of the city. Adjacent to the barracks is a third hospital, known as the followers' hospital, where camp servants are treated.

[A. F. Baillie, *Kurrachee, Past, Present, and Future* (1890); *Official Compendium of Military Information regarding Karāchi* (Bombay, 1896); *Karāchi Harbour Works* (Bombay, 1867); *An Account of the Port of Karāchi* (Karāchi, 1892).]

Keti (or Keti Bandar).—Port, town, and municipality in the Ghorābāri *tāluka* of Karāchi District, Sind, Bombay, situated in 24° 8′ N. and 67° 30′ E., close to the sea, on the Hajāmro branch of the Indus. Population (1901), 2,127. Keti is the chief port in the Indus delta for river and sea-going boats, and has taken the place of Ghorābāri, a little farther inland on the same branch, which was formerly the principal commercial town of the surrounding tract. In 1848 the Ha-

jāmro capriciously receded, and Ghorābāri immediately dwindled into comparative insignificance. The trade of the deserted port then betook itself to the first Keti, nearer the sea; but about 1853 the place was swept away by a flood, and a new site was chosen in the neighbourhood. This second Keti, the existing town and harbour, now about fifty years old, soon attracted the river trade, and at present ranks next to Karāchi among the ports of Sind. Exports to the Bombay and Madras Presidencies, Sonmiāni, and Makrān comprise grain, pulses, oilseeds, wool, cotton, drugs, dyes, saltpetre, and firewood. Imports, from the same places and the Persian Gulf, include coco-nuts, cotton piece-goods, metals, sugar, spices, coir, and shells. The value of the sea-borne trade of Keti in 1903–4 amounted to 6·8 lakhs: exports, 5·3 lakhs; imports, 1·5 lakhs. During the prevalence of the south-west monsoon trade remains at a standstill, vessels being unable to make the harbour from seaward. In the brisk season, from 70 to 90 boats of various sizes may be seen lining the *bandar*. Sea-borne goods for transit up the Indus must here be transferred to river boats. The town has several times been in danger of floods, but, owing to its slightly elevated position, has hitherto escaped the fate of its predecessor. It communicates by road with Tatta, 60 miles south-west; with Mīrpur Sakro, 36 miles south-west; and with Ghorābāri, 13 miles. The municipality was established in 1854, and had an average income during the decade ending 1901 of Rs. 6,400. In 1903–4 the income was Rs. 6,100. The town contains a dispensary, and one school for boys, with an average daily attendance of 88 pupils.

Kiamāri.—Formerly an island, now owing to the action of sand-drifts a portion of the mainland on the farther side of Karāchi harbour, Sind, Bombay, situated in 24° 49′ N. and 67° 2′ E., and forming one of the municipal quarters of KARĀCHI CITY, with which it is connected by a tramway road called the Napier Mole, 3 miles long, constructed in 1854 by the North-Western Railway. Kiamāri is the landing-place for passengers and goods destined for Karāchi or dispatch up-country, and contains the Merewether Pier, called after a former Commissioner in Sind, the foundation stone of which was laid by Lord Ripon in 1880, the Erskine Wharf, the James Wharf, and an oil pier. There are here a commissariat store, a customs house, a dispensary, &c. Kiamāri is a station on the North-Western Railway.

Kotri Town.—Head-quarters of the *tāluka* of the same name, Karāchi District, Sind, Bombay, situated in 25° 22′ N.

and 68° 22′ E., on the right bank of the Indus, here confined by a tolerably permanent bank. Population (1901), 7,617. Kotri has been placed in considerable danger by sudden and violent inundations of the Bāran mountain torrent, to protect it from which a dam was erected some years since. It is the southern junction of the branches of the North-Western Railway running down either side of the Indus, which is here crossed by a fine railway bridge. The Indus Steam Flotilla formerly had its head-quarters at Kotri, with a large floating dock for the repair of its steamers. Since the connexion of the railway in the Indus valley with the general railway system of India, the flotilla has been abolished, and its fleet of steamers sold; but there is still a considerable boat traffic. The town is within the *jāgīr* of Malik Sardār Khān, chief of the Nūmria or 'nine men' clan. Kotri was an unimportant village before the British conquest, except in a military point of view; it served in 1839 as an encamping place of the Bombay division of the army advancing upon Afghānistān. The municipality, established in 1854, had an average income during the decade ending 1901 of about Rs. 18,000. In 1903–4 the income was about Rs. 15,500. There was an epidemic of cholera in 1879, since which date great attention has been paid to sanitary arrangements. The town contains a Subordinate Judge's court, a dispensary, six schools for boys with an average daily attendance of 532 pupils, and two schools for girls with an attendance of 139 pupils.

Magar Talao ('Crocodile Tank,' also called Magar Pīr, or more correctly, Pīr Mangho).—Tank, hot springs, and temple in the District and *tāluka* of Karāchi, Sind, Bombay, situated in 24° 58′ N. and 67° 5′ E., about 9 miles north of Karāchi city, among very barren and rocky hills. Formerly there was a swamp here, in which many hundreds of tame crocodiles lived. This swamp has long ceased to be the home of crocodiles, which are now, to the number of about 25, confined in a small pool, surrounded by a masonry wall. They are quite different from the *ghariāl*, or long-snouted kind which abounds in the Indus. The temperature of the water of the hot springs is 133°. The springs are considered by the natives to be efficacious in the cure of every disease, and many bathe daily in the waters. The Hiranand Leper Asylum, which is intended for all those afflicted with skin disease, owes its inception to private enterprise. Picnics are frequently made here by parties from Karāchi, when a goat or other animal is bought and sacrificed for the crocodiles.

At the present time, a fairly constructed road runs from Karāchi to Magar Talao, and thence westerly to the Hab river; and a rough track also leads north to Shāh Bilāwal in Las Bela. There is a *dharmsāla* at Magar Talao, as also a small bungalow, erected by a Pārsī, where visitors can put up during their stay.

Mānjhand.—Town in the Kotri *tāluka* of Karāchi District, Sind, Bombay, situated in 25° 55′ N. and 68° 17′ E., close to the Indus, on the North-Western Railway, 43 miles north of Kotri. Population (1901), 2,862. Coarse cloth and shoes are manufactured here. The municipality, which dates from 1856, had an average income during the decade ending 1901 of Rs. 2,400. In 1903-4 the income was also Rs. 2,400. The town contains one boys' school, with an average daily attendance of 92 pupils.

Manora.—Cape in Karāchi District, Sind, Bombay, situated in 24° 48′ N. and 66° 59′ E. A lighthouse on the cape, with a fixed light 148 feet above high water, is visible upwards of 20 miles, but only from 10 to 15 miles during the south-west monsoon. Manora forms a cantonment, and contains the Persian Gulf Telegraph department cable factory and a recently constructed dry dock, known as the Giles Graving Dock. The Karāchi Port and Pilot establishments, the Port Officer and Port Engineer, and a portion of the Indo-European Telegraph establishment are resident here. An annual fair is held in March in honour of a *pīr* or saint, said to have been buried under miraculous circumstances. Manora hill is a very healthy place, and an occasional resort for invalids from Karāchi; it is 100 feet high at its east end, descending to 40 feet at the west end. At the distance of 2,310 feet to the east of Manora is a breakwater, which forms the protection of the entrance to Karāchi harbour in that direction. Opposite the north end of this breakwater is the landing-place, with three jetties on the island of Kiamāri: the Commissariat, the Passenger, and the Customs jetty. About 3 miles from the jetties is an island, on which is a meteorological observatory. There are fortifications and barracks, a dispensary, and a middle school for European and Eurasian girls at Manora Point. The entire peninsula has now been constituted a cantonment.

Shāhbandar Village.—Head-quarters of the *tāluka* of the same name in Karāchi District, Sind, Bombay, situated in 24° 10′ N. and 67° 56′ E., in the delta of the Indus. Population (1901), 785. Shāhbandar formerly stood on the east bank of

the Malir, one of the mouths of the Indus, but it is at present 10 miles distant from the nearest point of the river. A great salt waste commences about a mile to the south-east of the town, and on its westward side are extensive jungles of long *bīn* grass. It was to Shāhbandar that the English factory was removed from Aurangbandar when the latter place was deserted by the Indus; and, previous to the abandonment of the factory in 1775, it supported an establishment of fourteen vessels for the navigation of the river. The disastrous flood which occurred about 1819 caused material changes in the lower part of the Indus, and hastened the decay of Shāhbandar, which is now an insignificant village. Carless states that the native rulers of Sind had a fleet of fifteen ships stationed here. Vessels entered by the Richal, the only accessible mouth, and, passing into the Hajāmro through what is now the Khedewāri creek, ascended that stream to about 10 miles above Ghorābāri, where it joined the Malir.

Tatta Town (*Thato*; known among the inhabitants as *Nagar Thato*).—Head-quarters of the *tāluka* of the same name in Karāchi District, Sind, Bombay, situated in 24° 45′ N. and 67° 58′ E., about 7 miles west of the right bank of the Indus, and about 50 miles east of Karāchi. Population (1901), 10,783. The town is built on a slight eminence in an alluvial valley at the foot of the Makli hills. It would appear to have been at one time surrounded by the waters of the Indus; and to this day, after the subsidence of the annual inundation, numerous stagnant pools are left. A bad form of fever prevails at particular seasons of the year. It was mainly from this cause, combined with the unwholesome water of the place, that the British troops stationed here in 1839 suffered serious mortality. Tatta is most easily and speedily reached from Karāchi by the North-Western Railway as far as Jungshāhi, whence a metalled road, 13 miles long, leads directly to the town. The municipality, established in 1854, had an income during the decade ending 1901 averaging about Rs. 24,000. In 1903–4 the income was Rs. 30,600. The town is the head-quarters of an Assistant Collector, and contains a middle school and a dispensary. Other modern buildings are the Steele Hall and a library.

Tatta has played a very important part in the history of Sind, and was one of the Sammā capitals. When Akbar annexed Sind, Tatta was under the rule of Mirza Jānī Beg, who was allowed to retain it as a *jāgīr*. In 1739 it was ceded to Nādir Shāh of Persia, and was subsequently acquired by

the Kalhoras, from whom it passed to the Tālpur Mīrs. The population of Tatta fell off very much during the eighteenth century. Alexander Hamilton, who visited the place in 1699, calls it a large and rich city, about 3 miles long and 1½ broad. He states that 80,000 persons had, a short time previous to his visit, died of the plague, and that one-half of the city was in consequence uninhabited. It is also related by Pottinger that, when Nādir Shāh entered Tatta at the head of his army in 1742, there were 40,000 weavers, 20,000 other artisans, and 60,000 dealers of various kinds. In 1837 Captain J. Wood (of the Indian Navy), who had good opportunities of judging in this respect, estimated the entire population at not more than 10,000. The present trade of Tatta consists mostly of silk and cotton manufactures and grain. *Lungīs* (scarves or shawls), a thick, rich, and variegated fabric of cotton and silk, are still made, but not to the same extent as formerly. Coarse cotton fabrics, both plain and coloured, are also woven to some extent, but they have been largely superseded by the cheaper Manchester and Bombay goods. In 1758 a factory was established at Tatta by the East India Company, but it was withdrawn in 1775. Again, in 1799, another commercial mission was attempted, but this, like the former, terminated unsatisfactorily. In 1837 the total silk and cotton manufactures of Tatta were valued at Rs. 4,14,000, and the imports of British goods at Rs. 30,000. At present, the entire value of the local import trade, comprising upwards of twenty-five different articles, averages between 4 and 5 lakhs, the largest items being cotton cloth, rice, and sugar. The exports are also considerable, consisting of rice, *ghī*, grass, vegetables, fresh fruit, and wool. As regards the transit trade, a portion of the grain received from the Sujāwal, Jāti, and Shāhbandar *tālukas* finds its way through this town to Karāchi and the neighbouring hill country. The bulk of the road traffic of Central and Lower Sind passes through Tatta.

Among the ancient remains of Tatta may be mentioned the Jāma Masjid and fort. The site is undoubtedly of great antiquity, and it has by some been supposed to be the Patāla of the ancients. Outram assigns the foundation of the present town to the year 1445, but other writers state that it was not founded before 1522. The general opinion is that the former date is the more correct, and that the town owes its rise to a prince of the Sammā dynasty, Jām Nizām-ud dīn (commonly called Jām Ninda), whose tomb is to this day pointed out among others on the Makli hills. In 1555 Tatta is said by

Postans to have been pillaged and burnt by Portuguese mercenaries, and in 1592 it was again destroyed during the invasion of Sind by Akbar. The Jāma Masjid, by far the finest building in Tatta, is supposed to have been commenced in 1644 by order of the Mughal emperor, Shāh Jahān, as a memorial of his regard for the inhabitants, he having been permitted to pay his devotions in the former chief mosque during his flight from his father Jahāngīr. The building is rectangular in shape, 315 feet long by 190 feet wide, and covers a space of 6,316 square yards. The interior is beautifully painted in encaustic, the delicacy and harmony of the colouring being remarkable; there are also some very elegant specimens of perforated stonework in different parts of the mosque. It is said to have cost 9 lakhs; but it would, in all probability, have long since fallen into decay, had not the inhabitants of Tatta, by subscriptions raised among themselves, assisted by a money grant from the British Government, put the building into substantial repair. On the southern outskirts of the town stands the Dabgar Masjid, the oldest mosque in Tatta, built in 1509. It contains remains of very good tile-work. The fort of Tatta was commenced about 1699, during the reign of Aurangzeb, by Nawāb Hāfiz-ullah, but it was never completed. The foundation has now been almost entirely removed to provide material for building purposes.

Boundaries, configuration, and hill and river systems.

Sukkur District.—District in Sind, Bombay, lying between 27° 5′ and 28° 26′ N. and 68° 15′ and 70° 14′ E., with an area of 5,403 square miles. It is bounded on the north by the Upper Sind Frontier District and the Bahāwalpur State of the Punjab; on the east by the States of Bahāwalpur and Jaisalmer; on the south by Khairpur State and Lārkāna District; and on the west by Lārkāna and Upper Sind Frontier Districts. Until August, 1901, Sukkur formed part of Shikārpur District, which consisted of 14 *tālukas*. Seven *tālukas* were then detached to form the District of LĀRKĀNA, and the name of the remaining District was changed from Shikārpur to Sukkur. The general aspect is that of a vast alluvial plain, broken only at Sukkur and Rohri by low limestone hills, which tend to preserve a permanent bank for the Indus at those places. The Indus once flowed past these hills near the ancient town of AROR, but was diverted into its present channel through the Bukkur hills by some natural convulsion. Large patches of salt land, known as *kalar*, occur frequently, especially in the upper part of the District; and towards the Jacobābād frontier barren tracts of clay and ridges of sandhills covered with caper

and thorn jungle, constitute a distinctive feature in the landscape. The desert portion of the Rohri subdivision, known as the Registān, possesses extensive sandhills, bold in outline and often fairly wooded.

Geology. The Indus alluvium occupies most of the District. The town of Sukkur is built on a low hill of Kīrthar limestone, identical with the Spīntangi limestone of Baluchistān. The same rock forms a range of hills east of the Indus. A boring made at Sukkur in the hope of discovering oil penetrated through a thickness of shales and limestones greatly exceeding 1,000 feet, beneath the Spīntangi; these lower rocks are lithologically similar to the Ghāzij of Baluchistān, which occupies the same relative position.

Botany. Besides the common vegetation of Sind, the mango, mulberry, apple, pomegranate, and date grow freely; among timber trees are the *pīpal*, *nīm*, *ber*, *siras*, *tāli*, *bahān*, *babūl*, and *kandi*. The bush of Rohri jungle consists principally of tamarisks, and reed grasses are abundant; while, as in all parts of Upper Sind, the *kirar*, *ak*, and *pan* are ubiquitous.

Fauna. The wild animals found are the hyena, hog, wolf, fox, jackal, gazelle, and hog deer. Lynx are occasionally met with in the Rohri subdivision. The birds and water-fowl are those common to Sind. Crocodiles are common in the Eastern Nāra.

Climate, temperature, and rainfall. The climate is hot and dry, with a remarkable absence of air currents during the inundation season; and it is, in consequence, very trying to a European constitution. The hot season commences in April and ends in October; it is generally ushered in by violent dust-storms; the cold season begins in November and lasts till March. The maximum, minimum, and mean temperatures in the shade are on an average 120°, 61°, 81°. The transition period from the hot to the cold season is very sudden at Rohri. The annual rainfall at Sukkur town averages only 4·4 inches, occurring irregularly in the cold season and during the south-west monsoon.

History. The history of the Upper Sind Districts has been given in the historical survey of the province of SIND. Ruled until the Muhammadan invasion of 712 by a Brāhman dynasty of Aror (or Alor), 5 miles from the modern town of Rohri, this portion of Sind was for some time a dependency of the Ummayid Khalīfs and the Abbāsids. Conquered by Mahmūd of Ghazni in 1025, the District passed a few years later to the Sūmra dynasty, and then to the Sammā and Arghūn rulers of Sind. Under the emperors of Delhi, a Sindī tribe, the Mahars, asserted themselves by driving out the Jatoi tribe of

Baloch who were settled on the western bank of the Indus, but were themselves displaced some years later by the powerful Daudputras, another Sindī tribe, who, led on by their Pīr, Sultān Ibrāhīm Shāh, inflicted a severe defeat on the Mahars, sacked their town of Lakhi, and founded a new capital for Upper Sind at SHIKĀRPUR. In the eighteenth century the Kalhora chiefs held sway over the Upper Sind Districts till the Afghān invasion in 1781. Between 1809 and 1824, their successors, the Tālpur Mīrs, recovered Būrdika, Rūpar, and Sukkur from the Durrāni kingdom, and finally captured Shikārpur, in time to prevent that town falling into the hands of the Sikhs under General Ventura. In 1833, during the Tālpur rule, Shāh Shujā, the dethroned Afghān monarch, made an expedition into Upper Sind to recover his lost territory. He marched with a force via Bahāwalpur towards Shikārpur, and gained a victory which resulted in the payment to him by the Mīrs of 4 lakhs, and Rs. 50,000 for his officers of state, while 500 camels were made over for the king's use. The Shāh subsequently marched on his expedition against Kandahār; but, being defeated by Dost Muhammad, he retreated to Sind and proceeded to Hyderābād, where he obtained sufficient money from the Mīrs to enable him to return to Ludhiāna in the Punjab.

In 1843, on the conquest of the province by the British, all northern Sind, with the exception of that portion held by the Khairpur Mīr, Alī Murād Tālpur, was formed into the Shikārpur Collectorate and the Frontier District. In the previous year (1842), the towns of Sukkur, Bukkur, and Rohri had by treaty been ceded to the British in perpetuity. In 1851 Mīr Alī Murād Tālpur, of Khairpur, was after a full and public inquiry convicted of acts of forgery and fraud, in unlawfully retaining certain lands and territories which belonged of right to the British Government. The forgery consisted in his having destroyed a leaf of the Korān in which the Naunāhar treaty, concluded in 1842 between himself and his brothers, Mīrs Nasīr and Mubārak Khān, was written, and having substituted for it another leaf, in which the word 'village' was altered to 'district,' by which he fraudulently obtained possession of several large districts instead of villages of the same name. On January 1, 1852, the Governor-General of India (the Marquess of Dalhousie) issued a proclamation depriving the Mīr of the tracts wrongfully retained, and degrading him from the rank of Rais (or lord paramount). Of the area so confiscated, Ubauro, Būldika, Mīrpur, Saidābād, and other parts of Upper Sind on

the left bank of the Indus, now forming the greater part of the Rohri subdivision, were added to Shikārpur District, which in 1901 was divided into Sukkur and the new District of Lārkāna.

The principal antiquities are the ruined town and fort of Aror and the old stronghold of Māthelo. The latter, situated on rising ground 7 miles south-east of Ghotki railway station, is said to have been founded by a Rājput 1,400 years ago. In the old Hindu city of Vijnot, 4 miles south of Reti railway station, are found carved slabs, brick foundations, &c. In the vicinity are the old sites of Ther Sarwahi and Pattan Minār. The principal Musalmān remains worthy of note are the Jāma Masjid and War Mubārak of Rohri and Pīr Musan Shāh's Masjid at Ghotki. An ancient mosque at Ubauro is ascribed to the middle of the sixteenth century. Hakrah, about 2½ miles from Rohri, contains the ruins of an ancient town. Archaeology.

The area now constituting the District had in 1891 a population of 474,477. In 1901 the number had increased to 523,345, or by 10 per cent., dwelling in 5 towns and 606 villages. The *tāluka* distribution is shown in the following table:— The people.

Tāluka.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Shikārpur	492	1	88	108,097	220	+ 24	11,433
Naushahro Abro	408	1	87	71,036	147	+ 7	3,018
Sukkur	302	1	54	94,015	309	+ 13	4,303
Rohri	1,497	1	69	85,089	58	+ 5	2,353
Ghotki	518	1	129	72,019	139	+ 6	1,234
Mīrpur Māthelo	1,720	...	100	49,991	29	+ 4	440
Ubauro	466	...	79	43,098	92	+ 5	971
District total	5,403	5	606	523,345	97	+ 10	23,752

Hindus form 27 per cent. of the total, and Musalmāns 72 per cent. The density is 97 persons per square mile, the Mīrpur Māthelo *tāluka* being the least thickly populated, owing to its containing wide tracts of uncultivable desert. The towns are Shikārpur, Sukkur, Rohri, and Ghotki. The ordinary language is Sindī, spoken by 93 per cent. of the population. Baluchī and Siraikī are also spoken.

The Hindus of the District are, with few exceptions, Lohāno traders, a few Bhīls being found in Mīrpur Māthelo. Among Musalmāns, Baloch number 75,000, the principal tribes being Castes and occupations.

the Burdis, Chandias, Jatois, Lasharis, and Marris. The Mahars, who once owned a great portion of the District, number 11,388, while the Sumrās (23,000), Sammās (106,000), and the fishing caste of Muhānas (14,000) are the only other divisions of numerical importance. Arabs, including the Kalhoras, are represented by 29,000. The Dahars of Khairpur Daharki in the Ubauro *tāluka*, formerly Hindus, who came from Tonk Jodah near Delhi in the eleventh century and became converts to Islām, are an interesting section of the Musalmān population. Details of the proportion of the population supported by different occupations are not available for Sukkur District. In the old Shikārpur District agriculture supported 58 per cent., industries 31 per cent., and commerce 2 per cent.

Christian missions.

Of 450 Christians in 1901, 51 were natives, mostly Roman Catholics. Two missions are at work in the District: namely, the Punjab-Sind branch of the Church Missionary Society, which commenced work in Sukkur in 1885; and a branch of the Church of England Zenāna Mission, established in 1889, which maintains two Hindu girls' schools, a Muhammadan girls' school, an English school for boys and girls, a female dispensary, and an orphanage for boys.

General agricultural conditions.

The soils in the Rohri subdivision are in some places very rich. The stiff heavy soil saturated with moisture, known as *sailābi*, is found chiefly in the Shikārpur subdivision. It requires no water from seedtime to harvest.

Chief agricultural statistics and principal crops.

The total cultivable land is estimated at 2,726 square miles, of which 1,106 are occupied. The chief statistics of cultivation in 1903 are shown below, in square miles:—

Tāluka.	Total.	Cultivated.	Irrigated.	Waste.	Forests.
Shikārpur	494	243	122	153	46
Naushahro Abro	401	180	109	78	69
Sukkur	300	143	88	17	82
Rohri	1,496	515	79	922	21
Ghotki	519	175	63	140	126
Mīrpur Māthelo	1,721	189	85	121	23
Ubauro	469	139	59	188	30
Total	5,400*	1,584	605	1,619	397

* This differs from the area shown in the Census of 1901, being based upon more recent information.

The principal crops, with the area under each, are rice (87 square miles), wheat (249), *jowār* (262), *bājra* (37), pulses, chiefly *lang* and gram (67), and oilseeds (47 square miles). About half of the total area under rice is in Naushahro Abro. Wheat is grown mainly in Rohri and Ghotki. Cotton, fruits,

and vegetables are also extensively grown. Large advances have been made under the Land Improvement and Agriculturists' Loans Acts, amounting during the decade ending 1903-4 to more than 7½ lakhs, of which 1·3 lakhs was advanced in 1899-1900, 1½ lakhs in 1902-3, and 1·4 lakhs in 1903-4.

Improvements in agricultural practice.

Owing to the extension of irrigation, a large amount of land has been brought under cultivation during the last twenty-five years. Rice is more largely cultivated, and ground-nuts are being introduced as an alternative crop to *jowār* with considerable success.

Domestic animals.

The domestic animals comprise camels, horses, buffaloes, bullocks, sheep, goats, mules, and donkeys. The camels are mostly imported from Jaisalmer and Thar and Pārkar, while good ponies of medium height are procurable in all parts of the District. Most of the animals which change hands at the annual Shikārpur horse show come from Jacobābād or from across the frontier. Mule-breeding is becoming popular, most of the animals being bred from Government donkey stallions.

Irrigation.

Of the total area cultivated, 605 square miles, or 39 per cent., were irrigated in 1903-4. The various classes of irrigation sources are Government canals (141 square miles), private canals (408 square miles), wells (8 square miles), and 'other sources' (47 square miles). Irrigation is also effected in some parts by *lets* or inundations of the Indus, which are a source of fertility in the Rohri subdivision. In other parts they are apt to be excessive, and protective embankments have been erected in many villages to prevent the wholesale destruction of crops. The chief canals, all of which are fed by the Indus, are the Sind Canal, irrigating 166 square miles, Begāri (78), Sukkur Canal (53), Nāra Supply Channel (13), and Mahi Wah (74). The total cultivable area commanded by the irrigation works is 1,096 square miles.

Forests.

The forests of Sukkur cover an area of about 400 square miles, but are valuable only as fuel and timber reserves. They fringe the banks of the Indus and are in charge of a divisional Forest officer. The important trees are the *pīpal*, *nīm*, *ber*, *siras*, *tāli*, *bahān*, *babūl*, and *kandi*. The bush jungle consists for the most part of tamarisk. The forest receipts in 1903-4 amounted to Rs. 94,000.

Manufactures and trade.

The manufactures include earthenware, metal vessels, coarse cotton cloth, and leathern articles. The towns of Ghotki and Khairpur Daharki are noted for their manufactures of pipe-bowls, snuff-boxes, scissors, and cooking pots. *Tasar* silk is manufactured at Rohri. The former trade through the Bolān

Pass has almost entirely ceased, goods from Afghānistān and Central Asia taking the railway route. Sukkur and Shikārpur are the only two important trade centres. The former has a large trade by rail and boat with the Punjab in wheat, timber, iron, and piece-goods. The traders of Shikārpur have direct dealings with Afghānistān, Bahrein, Cutch, Constantinople, China, and Japan in carpets, pearls, silks, silver-work, and fancy work. Both towns carry on a large import trade in wool from Afghānistān.

Communications. Railways and roads.

Besides the trunk roads which connect Sukkur with the adjoining Districts of Upper Sind, Lārkāna, Hyderābād, and Karāchi, and with the Native States of Khairpur and Bahāwalpur, the North-Western Railway runs through the District on both banks of the Indus, with a branch from Sukkur towards Quetta. The new line, styled the Kotri-Rohri Railway, on the left bank of the Indus, is an addition made in the last decade. The Indus is also a convenient and cheap means of water communication, and bears large numbers of country boats. The total length of metalled roads outside the municipal limits of Sukkur and Shikārpur is 8 miles, and of unmetalled roads 1,370 miles. They are all maintained by the local authorities. The chief roads are the Hyderābād-Multān road, running north for 73 miles, the Sukkur-Jacobābād road (38 miles), and the road from Rohri to Khairpur (16 miles). Avenues of trees are maintained on these three roads.

District subdivisions and staff.

The *tālukas* are for administrative purposes grouped into three subdivisions—ROHRI, MĪRPUR, and SHIKĀRPUR—in charge of two Assistant Collectors and a Deputy-Collector. The Collector is *ex-officio* Political Agent for the Khairpur State.

Civil and criminal justice.

A District and Sessions Judge and a Joint Judge sit at Sukkur; and the civil judicial staff includes five Subordinate Judges. The District and Sessions Judge exercises jurisdiction also over Lārkāna District. Rohri possesses a resident Magistrate; and both Shikārpur and Sukkur have City Magistrates. The Subordinate Judges exercise jurisdiction in suits of Rs. 5,000 in value or less within local limits. The first-class Subordinate Judge at Sukkur can hear suits of any value within the limits of Sukkur, Lārkāna, and Jacobābād Districts, excepting suits against Government. The District and Joint Judges hear suits and appeals of any value arising within the three Districts. Theft and cattle-stealing are the commonest forms of crime.

Land revenue administration.

In the Rohri subdivision the *maurūsi* tenure is found, under which the tenants possess an hereditary right of occupancy. This tenure resembles the *aforament* prevailing in parts of

Portugal and the *beklemreght* in the province of Gröningen described by M. de Lavaleye in the first volume of the *Cobden Club Essays*. The tenant pays a quit-rent to the proprietor, which differs in different villages, but seldom exceeds 6 or 8 annas per acre, and cannot be enhanced. The settlement of the Government demand is made direct with the tenant, who is entered in the register as an occupant, the amount of quit-rent payable to the proprietor being also recorded. Other tenures are the *zamīndāri* and *pattadāri*. The former is equivalent to a charge on cultivation, payable in cash or in kind to the *zamīndār*. The latter has arisen out of grants under leases of reduced assessment, made by the Afghān government to Pathān settlers, and is now equivalent to the assignment of a fixed proportion of the revenue to the alienees. *Jāgīr* lands are found in every *tāluka* of the Rohri subdivision, and in a small portion of the Shikārpur subdivision, amounting altogether to 479 square miles. The first survey settlement was introduced into the District between 1862 and 1873, and has been revised every ten years. The survey rates at present in force are: garden land, Rs. 4-2 (maximum Rs. 6-8 and minimum Rs. 3); rice land, Rs. 4-2 (maximum Rs. 5 and minimum Rs. 3); 'dry' land, Rs. 2-11 (maximum Rs. 3-8 and minimum Rs. 1-12).

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	21,43	46,10	53,14	22,04
Total revenue . .	27,60	57,10	67,34	29,47

NOTE.—The figures for the three earlier years represent the old District of Shikārpur; the figures for 1903-4 are for the present District of Sukkur.

Municipalities and local boards.

There are five municipalities in the District: SUKKUR, SHIKĀRPUR, GHARI YĀSIN, ROHRI, and GHOTKI. The local affairs of the rest of the District are managed by the District board at Sukkur and seven *tāluka* boards, with receipts of more than 1.2 lakhs in 1903-4. The expenditure in the same year was likewise 1.2 lakhs, of which about Rs. 50,000 was spent on roads and buildings. The principal source of income is the land cess.

Police and jails.

The District Superintendent of police has an Assistant Superintendent and four inspectors. There are 13 police stations in the District. The total number of police is 712, of whom 11 are chief constables, 115 head constables, and 586 constables.

The District jail at Shikārpur has accommodation for 433 prisoners. A new District jail is now being built at Sukkur town. There are six subsidiary jails, with accommodation for 108 prisoners. The total daily average number of prisoners in 1904 was 439, of whom 5 were females.

Education. The District stands last but one among the twenty-four Districts of the Presidency in respect of the literacy of its population, of whom 1·7 per cent. (5·7 males and 0·9 females) were able to read and write in 1901. In 1880–1 there were 104 schools with an attendance of 7,087 pupils. The number of pupils rose to 19,738 in 1891 and to 26,388 in 1901 before the formation of Lārkāna District. In 1903–4 there were 466 schools with 17,485 pupils. Of these institutions, one is a high school, six are middle schools, and two are technical and other special schools. The high school and a Saturday afternoon drawing-class for masters are supported by Government, 111 schools are managed by the local and municipal boards, 170 are aided, and one is unaided. The expenditure incurred on education is about 1½ lakhs, of which Rs. 21,000 is derived from fees. Of the total amount, 67 per cent. is devoted to primary schools.

Hospitals and dispensaries. Besides several private medical institutions, there are three hospitals and six dispensaries in the District, with accommodation for 132 in-patients. In these institutions, 96,980 cases were treated in 1904, of whom 1,441 were in-patients, and 4,536 operations were performed. The total expenditure was Rs. 23,800, of which Rs. 12,900 was contributed by the local boards and municipalities.

Vaccination. The number of persons successfully vaccinated in 1903–4 was 15,751, representing a proportion of 30 per 1,000, which exceeds the average of the Presidency.

[A. W. Hughes, *Gazetteer of the Province of Sind* (1876).]

Shikārpur Subdivision.—Subdivision of Sukkur District, Sind, Bombay, composed of the SHIKĀRPUR, NAUSHAHRO ABRO, and SUKKUR *tālukas*.

Shikārpur Tāluka.—*Tāluka* in Sukkur District, Sind, Bombay, lying between 27° 55′ and 28° 10′ N. and 68° 25′ and 69° 9′ E., with an area of 492 square miles. The population rose from 86,932 in 1891 to 108,097 in 1901. The *tāluka* contains one town, SHIKĀRPUR (population, 49,491), the head-quarters; and 88 villages. The density, 220 persons per square mile, largely exceeds the District average. The land revenue and cesses in 1903–4 amounted to 2·7 lakhs. The northern portion of the *tāluka* is but poorly irrigated, but excellent

garden crops are raised near Shikārpur town and good early crops in the tracts irrigated by the Sind Canal.

Naushahro Abro.—*Tāluka* in Sukkur District, Sind, Bombay, lying between 27° 42′ and 28° 2′ N. and 68° 15′ and 68° 48′ E., with an area of 408 square miles. The population rose from 66,227 in 1891 to 71,036 in 1901. The *tāluka* contains one town, GĀRHI YĀSIN (population, 6,554), the head-quarters; and 87 villages. The density, 147 persons per square mile, greatly exceeds the District average. The land revenue and cesses in 1903–4 amounted to 2·8 lakhs. The *tāluka* is fertile and, together with the Shikārpur *tāluka*, is the most prosperous tract in the District. The chief crops are rice, *jowār*, wheat, and gram, which are irrigated from the Sukkur Canal.

Sukkur Tāluka (*Sakhar*).—*Tāluka* in Sukkur District, Sind, Bombay, lying between 27° 41′ and 27° 58′ N. and 68° 38′ and 69° 2′ E., with an area of 302 square miles. The population rose from 83,543 in 1891 to 94,015 in 1901. The *tāluka* contains one town, SUKKUR (population, 31,316), the head-quarters; and 54 villages. The density, 309 persons per square mile, is the highest in the District. The land revenue and cesses in 1903–4 amounted to 2·3 lakhs. Irrigation depends chiefly on the Sukkur and Sind Canals, which, however, cannot reach the high-lying portions of the *tāluka*. The tract on the left bank of the Indus is poorly served with canals, and so far it has not been possible here to regulate irrigation from the river.

Rohri Subdivision.—Subdivision of Sukkur District, Sind, Bombay, composed of the ROHRI and GHOTKI *tālukas*.

Rohri Tāluka.—*Tāluka* in Sukkur District, Sind, Bombay, lying between 27°·4′ and 27° 50′ N. and 68° 35′ and 69° 48′ E., with an area of 1,497 square miles. The population rose from 81,041 in 1891 to 85,089 in 1901. The *tāluka* contains one town, ROHRI (population, 9,537), the head-quarters; and 69 villages. The density, 58 persons per square mile, is much below the District average. The land revenue and cesses in 1903–4 amounted to 1·7 lakhs. The Eastern Nāra Canal runs south through the high-lying land, which has to be irrigated by lifts. Fair rice, *jowār*, and, near the Indus, wheat crops are grown. In the south, ranges of sandhills relieve the monotony of the country; but there the soil is barren and fit only for grazing.

Ghotki Tāluka.—*Tāluka* in Sukkur District, Sind, Bombay, lying between 27° 40′ and 28° 11′ N. and 69° 4′ and 69°

35′ E., with an area of 518 square miles, including the Pano Akil *mahāl* (168 square miles). The population rose from 67,743 in 1891 to 72,019 in 1901. The *tāluka* contains one town, GHOTKI (population, 3,821), the head-quarters; and 129 villages. The density, 139 persons per square mile, is much above the District average. The land revenue and cesses in 1903–4 amounted to 2·2 lakhs. The *tāluka* is liable to floods, and depends for the irrigation of its *jowār* and wheat upon small canals leading direct from the Indus. The *zamīndārs* are mostly small holders and impoverished. Much forest land fringes the banks of the river.

Mīrpur Subdivision.—Subdivision of Sukkur District, Sind, Bombay, consisting of the MĪRPUR MĀTHELO and UBAURO *tālukas*.

Mīrpur Māthelo.—*Tāluka* in Sukkur District, Sind, Bombay, lying between 27° 20′ and 28° 7′ N. and 69° 16′ and 70° 10′ E., with an area of 1,720 square miles. The population rose from 48,068 in 1891 to 49,991 in 1901. The *tāluka* contains 100 villages, of which Mīrpur Māthelo is the head-quarters. This is the most thinly populated tract in the District, with a density of only 29 persons per square mile. The land revenue and cesses in 1903–4 amounted to 2·2 lakhs. The *tāluka*, which produces mostly *jowār*, is watered by the Masa Wah. In the south lies a wide tract of sandy desert.

Ubauro.—*Tāluka* in Sukkur District, Sind, Bombay, lying between 27° 48′ and 28° 26′ N. and 69° 36′ and 70° 14′ E., with an area of 466 square miles. The population rose from 40,923 in 1891 to 43,098 in 1901. The *tāluka* contains 79 villages, of which Ubauro is the head-quarters. The density approximates to the District average. The land revenue and cesses amounted in 1903–4 to about 2 lakhs. The *tāluka* receives a very uncertain supply of water from the Mahi Wah, and the cultivators are rather less prosperous than in other parts of Sind. There is a large area of *jāgīr* land within the *tāluka*.

Aror.—Ruined town in the Rohri *tāluka* of Sukkur District, Sind, Bombay, situated in 27° 39′ N. and 68° 59′ E., 5 miles east of Rohri town. Population (1901), 939. It was formerly the capital of the Hindu Rājās of Sind, and is said by native historians to have been taken from them by the Muhammadans about A.D. 712. It was built on the bank of the old course of the Indus—then known as the Mihrān—and was

to be sacred to the goddess Kālika Devī, where an annual fair is held.

Bukkur (*Bakhar*).—Fortified island in the Indus river, in Sukkur District, Sind, Bombay, situated in 27° 43′ N. and 68° 56′ E., between the towns of Sukkur and Rohri. Population (1901), 8,062. Bukkur is a rock of limestone, oval in shape, 800 yards long by 300 wide, and about 25 feet in height. The channel separating it from the Sukkur shore is not more than 100 yards wide, and, when the river is at its lowest, about 15 feet deep in the middle. In 1903 this channel dried up for the first time on record. The eastern channel, or that which divides it from Rohri, is much broader, being, during the same state of the river, about 400 yards wide, with a depth of 60 feet in the middle. The Government telegraph line from Rohri to Sukkur crosses the river here by the island of Bukkur, and the railway passes by a cantilever bridge over the wider branch. The Lansdowne Bridge, which crosses the Indus via Bukkur, was completed in 1889 at a cost of 38·2 lakhs. The largest span between Bukkur and Rohri is 820 feet. A little to the north of Bukkur, and separated from it by a narrow channel of easy passage, is the small islet of Khwāja Khizr, or Jind Pīr, containing a shrine of much sanctity; while to the south of Bukkur is another islet known as Sādh Bela, covered with foliage, and also possessing some sacred shrines. Almost the whole of the island of Bukkur is occupied by the fortress, the walls of which are double, and from 30 to 35 feet high, with numerous bastions; they are built partly of burnt and unburnt brick, are loopholed, and have two gateways, one facing Rohri on the east, and the other Sukkur on the west. The fort presents a fine appearance from the river, but the walls are now in disrepair. Until 1876, Bukkur was used as a jail subsidiary to that at Shikārpur.

That Bukkur, owing to its insular position, must always have been considered a stronghold of some importance under native rule is evidenced by its being so frequently a bone of contention between different States. So early as 1327, when Sind was an apanage of the Delhi empire, Bukkur seems to have been a place of note, from the fact that trustworthy persons were employed by the emperor Muhammad bin Tughlak to command here. During the rule of the Sammā princes, the fort seems to have changed hands several times, being occasionally under their rule, and at times under that of Delhi. In the reign of Shāh Beg Arghūn, the fortifications of Bukkur appear to have been partially, if not wholly, rebuilt, the fort of Alor

being broken up to supply the requisite material. In 1574 the place was delivered up to Keshū Khān, a servant of the Mughal emperor Akbar. In 1736 Bukkur fell into the hands of the Kalhora princes, and at a subsequent date into that of the Afghāns, by whom it was retained till captured by Mīr Rustam Khān of Khairpur. In 1839, during the first Afghān War, the fort of Bukkur was ceded by the Khairpur Mīrs to the British, to be occupied by them, and it so remained till the conquest of the whole province in 1843. Bukkur was the principal British arsenal in Sind during the Afghān and Sind campaigns.

Garhi Yāsin.—Town in the Naushahro Abro *tāluka* of Sukkur District, Sind, Bombay, situated in 27° 54′ N. and 68° 33′ E. Population (1901), 6,554. There is a considerable trade in oilseeds. The municipality, established in 1870, had an average income during the decade ending 1901 of Rs. 12,000. In 1903–4 the income was Rs. 25,000. The town contains a dispensary and two schools with 171 pupils.

Ghotki Town.—Head-quarters of the *tāluka* of the same name in Sukkur District, Sind, Bombay, situated in 28° N. and 69° 21′ E., on the North-Western Railway. Population (1901), 3,821. The Muhammadan inhabitants are chiefly Pathāns, Malaks, Saiyids, Muchis, and Lohārs, and the Hindu principally Baniyās. Ghotki was founded about 1747. The mosque of Pīr Musan Shāh, the founder of the place, 113 feet long by 65 feet broad, and decorated with coloured tiles, is the largest in Sind, and of great sanctity. Local trade is chiefly in cereals, indigo, wool, and sugar-cane. The Lohārs (blacksmiths) of Ghotki are famed for their metal-work; wood-carving and staining are also very creditably executed. The municipality, constituted in 1855, had an average income during the decade ending 1901 of Rs. 8,045. In 1903–4 the income was Rs. 7,500. The town contains a dispensary and two schools, attended by 172 boys and 6 girls.

Rohri Town.—Head-quarters of the *tāluka* of the same name in Sukkur District, Sind, Bombay, situated in 27° 41′ N. and 68° 56′ E., upon the left or eastern bank of the Indus, on a rocky eminence of limestone interspersed with flints. Population (1901), 9,537. The Hindus, who are mostly of the Baniyā caste, are engaged in trade, banking, and money-lending, while the Muhammadans are chiefly of the Bhuta, Kori, Patoli, Muhāno, Khati, Memon, and Shikāri tribes, or describe themselves as Shaikh and Saiyid.

Rohri is said to have been founded by Saiyid Rukn-ud-dīn Shāh in 1297. The rocky site terminates abruptly on the west

in a precipice 40 feet high, rising from the bank of the river, which, during the inundation season, attains a height of about 16 feet above its lowest level. On the northern side is the mouth of the supply channel for the Eastern Nāra Canal, 156 feet wide, which is provided with powerful sluice gates to regulate the supply of water as required. When seen from a little distance, Rohri has a pleasing appearance, the houses being lofty, frequently four and five storeys high, with flat roofs surrounded by balustrades; some are of burnt brick, erected many years ago by wealthy merchants belonging to the place. But the streets are in several parts very narrow, and the air is close and unwholesome. It has road communication with Mīrpur, Kandahār, and Sangrār, and the main trunk road from Hyderābād to Multān also passes through it. The town has derived a new importance as the station where the North-Western State Railway crosses the Indus, and as the junction of the Kotri-Rohri lines. It contains a Subordinate Judge's court, a dispensary, and four schools, of which three for boys have 754 pupils and one for girls has 80 pupils.

Rohri has a large number of Muhammadan places of worship. One, known as the Jāma Masjid, was built in 1564 by Fateh Khān, lieutenant of the emperor Akbar; it is a massive but gloomy pile of red brick, covered with three domes, and coated with glazed porcelain tiles. The other, the Idgāh Masjid, was erected in 1593 by Mīr Musan Shāh. The War Mubārak, a building about 25 feet square, situated to the north of the town, was erected about 1745 by Nūr Muhammad, the reigning Kalhora prince, for the reception of a hair from the beard of Muhammad. This hair, to which miraculous properties are ascribed by the faithful, is set in amber, which again is enclosed in a gold case studded with rubies and emeralds, the gift of Mīr Alī Murād of Khairpur. The relic is exposed to view every March, when the hair is believed by the devotees to rise and fall, and also to change colour.

Rohri has been administered as a municipality since 1855, and the town has, in consequence, greatly improved as regards both health and appearance. The municipal income during the decade ending 1901 averaged Rs. 21,600. In 1903–4 it was Rs. 27,000. The trade is principally in grain, oil, *ghī*, salt, fuller's-earth, lime, and fruits. *Tasar* silk is manufactured. Opposite to Rohri on the Indus is the small island of Khwāja Khizr, containing the shrine of a saint who is revered alike by Muhammadans and Hindus.

Shikārpur Town.—Head-quarters of the *tāluka* of the

same name in Sukkur District, Sind, Bombay, situated in 27° 57′ N. and 68° 40′ E., and connected by good roads and the North-Western Railway with Jacobābād, from which it is distant 26 miles south-east, with Sukkur 23 miles north-west, and Lārkāna 40 miles north-east. It stands in a tract of low-lying country, annually flooded by canals from the Indus, the nearest point of which river is 18 miles west. The elevation of the town is only 194 feet above sea-level. Two branches of the Sind Canal—the Chhota Begāri and the Rais Wah—flow on either side of the town, the former to the south and the latter to the north. The soil in the immediate vicinity is very rich, and produces heavy crops of grain and fruit. Population: (1881) 42,496, (1891) 42,004, and (1901) 49,491. Hindus number 31,589, Muhammadans 17,804. The Municipal Act was brought into force in 1855, since which date great sanitary improvements have been effected. Before that time, Shikārpur was notorious for its unsightly appearance. The Stewartganj market (so called after a popular District officer) is a continuation of the old bazar, and is a commodious structure. The great covered bazar of Shikārpur is famous throughout Asia. To the east of the town are three large tanks, known as Sarwar Khān's, the Gillespie, and the Hazāri tank. Broad roads and avenues to the east of the town still mark the site of the old cantonment; but most of the barracks and bungalows are now dilapidated. Other features of interest are the European cemetery, opened in 1851; the Collector's residence, shortly to be converted into a circuit-house; a swimming bath near the Executive Engineer's house; and the military farm buildings occupying the old police lines. The income of the municipality during the decade ending 1901 averaged Rs. 1,14,270. In 1903–4 the income was Rs. 1,28,000, derived chiefly from octroi (Rs. 81,000) and conservancy taxes (Rs. 12,000); and the expenditure was Rs. 74,000, including Rs. 32,000 for conservancy, Rs. 18,000 for education, and Rs. 9,000 for lighting. The town contains a Subordinate Judge's court, a civil hospital, and a dispensary. The schools, including a Government high school with 330 pupils, number 16, of which 12 are for boys and 4 for girls. The boys' schools have 1,606 pupils; and the girls' schools, of which 2 are for Muhammadans and 2 for Hindus, have 562 pupils. Besides these, there are several private schools, including an English school with 159 pupils.

The trade of Shikārpur has long been famous, under both native and British rule. The town is situated on one of the

great routes from Sind to Khorāsān via the Bolān Pass; and its commerce in 1841, which in quality remains much the same to-day, was thus described by Postans:—

'Shikārpur receives from Karāchi, Mārwār, Multān, Bahāwalpur, Khairpur, and Ludhiāna European piece-goods, raw silk, ivory, cochineal, spices of sorts, coarse cotton cloth, *kinkhabs*, manufactured silk, sugar-candy, coco-nuts, metals, *kirami* (groceries), drugs of sorts, indigo and other dyes, opium, and saffron; from Kachhi, Khorāsān, and the north-west, raw silk (Turkestān), various kinds of fruit, madder, turquoises, antimony, medicinal herbs, sulphur, alum, saffron, asafoetida, gums, cochineal, and horses. The exports from Shikārpur are confined to the transmission of goods to Khorāsān through the Bolān Pass, and a tolerable trade with Kachhi (Bāgh, Gandāva, Kotri, and Dadar). They consist of indigo (the most important), henna, metals of all kinds, country coarse and fine cloths, European piece-goods (chintzes, &c.), Multāni coarse cloth, silks (manufactured), groceries and spices, raw cotton, coarse sugar, opium, hemp-seeds, shields, embroidered horse-cloths, and dry grains. The revenue of Shikārpur derivable from trade amounted in 1840 to Rs. 54,736, and other taxes and revenue from lands belonging to the town, Rs. 16,645, making a total of Rs. 71,381, which was divided among the Khairpūr and Hyderābād Tālpur Mīrs in the proportion of three-sevenths and four-sevenths, respectively.'

Since Postans wrote, Shikārpur has lost much of its commercial importance, owing to the construction of the North-Western Railway and its extension to Quetta. The enterprise of its merchants, however, renders it still a considerable entrepôt. The local traders deal largely with Central Asia, where many of them pass long periods, while others travel to Bombay and all parts of India, and even to Europe or Japan. The principal manufactures are carpets and coarse cotton cloth. In the Government jail, baskets, reed chairs covered with leather, carpets, shoes, &c., are made by the prisoners.

Sukkur Town (*Sakhar*).—Head-quarters of Sukkur District, Sind, Bombay, situated in 27° 42′ N. and 68° 54′ E., on the right or western bank of the Indus, opposite Rohri. Midway between these two towns lies the island fortress of Bukkur, and a little southward the wooded island of Sādh Bela. Sukkur is a station on the North-Western Railway, which here crosses the Indus to Rohri by the fine Lansdowne Bridge, constructed on the cantilever principle.

A range of low limestone hills, utterly devoid of vegetation, slopes down to the river; and it is on this rocky site that New Sukkur, as distinguished from the old town of the same name

about a mile distant, is partly situated. Scattered about are the ruins of numerous tombs; and at the western side of the town, overlooking the river, is the lofty minaret of Mīr Māsum Shāh, erected, it is supposed, about 1607. The town is well drained and clean. In 1834 the population was estimated at only 4,000; in 1872 it had risen to 13,318; in 1881 to 27,389; in 1891 to 29,302; and in 1901 to 31,316. Muhammadans number 11,386; Hindus, 19,313; Christians, 339.

The trade of Sukkur, both local and transit, is still considerable, but no trustworthy details are available. It has suffered from the completion of railways on both banks of the Indus to Karāchi, and the consequent through booking of export produce. Statistics of the traffic on the Indus appear to have been regularly kept from 1855–6 to 1861–2, by an officer of the Indian Navy. In 1855–6, 600 boats proceeded up river with a tonnage of 7,750 tons; and in 1861–2, 1,232, with a tonnage of 20,232 tons, discharged at the port. In the same years, 629 and 1,714 boats left Sukkur, with cargoes amounting to 8,000 and 16,317 tons, respectively. The downward exports comprise silk, cotton cloth, raw cotton, wool, opium, saltpetre, sugar, dyes, and brass utensils. The upward traffic includes piece-goods, metals, wines and spirits, and country produce. There is a large local trade between Sukkur and Shikārpur. The town possesses no special manufactures, except a considerable boat-building industry. It has an aided technical school with an attendance of 27, and 13 other schools, of which 9 are for boys with 1,034 pupils, and 4 are for girls with 181 pupils. Besides the offices of the District authorities, the town contains a Subordinate Judge's court, a civil hospital, and a dispensary.

Old Sukkur seems to be a place of no great antiquity, though it contains the ruins of numerous tombs and mosques. Among the former is the tomb of Shāh Khair-ud-dīn Shāh, which is said to have been erected about 1758. New Sukkur owes its existence to the stationing of European troops here in 1839, at the time when Bukkur fort was made over to the British; and it was rapidly converted into a prosperous and busy town. In 1845, after a fatal epidemic of fever among the garrison, New Sukkur was abandoned as a station for European troops; but it is now of greater importance than before, as the centre of railway communication with Karāchi, Multān, and Quetta. A chain of forts protects the approach to the Lansdowne Bridge, while the repairing shops of the North-Western Railway in the Adam Shāh quarter are pro-

tected for rifle-defence. The water-supply is drawn from a group of wells near the Lansdowne Bridge, and is pumped up to tanks near the water-tower, which stands on the highest point of the limestone rocks of Sukkur. Among the chief buildings of New Sukkur are the municipal office and library, used as a signal-station during the period of existence of the Indus flotilla, three churches, and the railway institute. Little is known of Old Sukkur in the days of Afghān rule; but it is believed to have been ceded to the Khairpur Mīrs some time between the years 1809 and 1824. In 1833 it was the scene of a conflict between Shāh Shujā-ul-mulk, the dethroned Durrāni sovereign, and the Tālpur Mīrs, the latter being defeated. In 1843 Old Sukkur, together with Karāchi, Tatta, Bukkur, and Rohri, was yielded to the British in perpetuity.

The municipality, established in 1862, had an average revenue during the decade ending 1901 of 3 lakhs. In 1903-4 the income was 2 lakhs, composed chiefly of octroi (Rs. 94,000), *bandar* or port fees (Rs. 24,000), rent of houses and lands (Rs. 11,000), and house tax (Rs. 10,000); while the expenditure amounted to 1·6 lakhs, including Rs. 50,000 for administrative charges, Rs. 47,000 for extraordinary charges and debt, Rs. 21,000 for education, and an equal sum for conservancy.

Lārkāna District.—District in Sind, Bombay, lying between 25° 53′ and 28° N. and 67° 11′ and 68° 33′ E., with an area of 5,091 square miles. The District is bounded on the north by Sukkur and Upper Sind Frontier Districts; on the east by the Indus river, which separates it from Sukkur District, the Khairpur State, and Hyderābād District; on the south by Karāchi District; and on the west by the territory of the Khān of Kalāt, the Kīrthar Range and the Pab mountains forming a natural line of demarcation on that side. The name is derived from the tribe of Larak or Ladak, which once resided in the Lārkāna subdivision and is found in Kāthiāwār at the present day.

Boundaries, configuration, and hill and river systems.

With the exception of the western portion, which is mountainous, the general aspect is that of a flat plain, intersected by canals. The southern portion (Sehwān subdivision) differs in some respects from the remainder, in being more hilly and possessing the only lake of importance in Sind, known as the MANCHHAR. Patches of *kalar* or salt soil are met with in different parts of the District. Many of the peaks of the Kīrthar Range are lofty, one of them, known as the Kutta-jo-Kabar ('dog's tomb'), attaining an altitude of 6,200 feet. For the rest, Lārkāna does not differ in appearance from other

parts of Sind. Of the hills in the southern portion of the District, the most conspicuous are the LAKHI RANGE and the Jatil hills running just outside the boundary south-west from Sehwān to Duba. The latter are steep and of considerable height, probably in few places less than 2,000 feet. The Western Nāra, which is a natural river artificially improved, is the largest canal in the District. The portions of the District lying between this canal and the Indus or the Ghār Canal are one dead flat of rich alluvial soil, well cultivated and, on the whole, thickly populated. Hill torrents or *nais* are frequent. The principal is the Nai-Gāj, which takes its rise in Baluchistān and enters the District south of the Danna Towers. It usually rises in flood once or twice in the year. The Irak river, rising in the Hathul hills between Karāchi and Sehwān, after a south-easterly course of 40 miles, falls into the Kinjhar lake, while the Aral is one of the main channels by which the waters of the Manchhar Lake are discharged into the Indus. Other hill-streams are insignificant and rarely hold water.

Geology. It is only in the Kīrthar Range, forming the frontier between Sind and Baluchistān, that Lārkāna contains any rocks older than recent, the remainder of the area being occupied by Indus alluvium. The Kīrthar Range consists of the following series: Manchhar beds, corresponding with the strata known elsewhere as Siwāliks, which are of middle and upper miocene age; the Gāj group, marine beds of lower to middle miocene age, named after the Gāj river in this District; the Upper Nāri, or oligocene; the Lower Nāri, highly fossiliferous Nummulitic strata of the upper eocene; the Kīrthar Nummulitic limestone, middle eocene, corresponding with the Spīntangi limestone of Baluchistān. On the western side of the range, beyond the frontier, this limestone is underlaid by a thickness of several thousand feet of shaly beds corresponding with the Ghāzij and Khojak shales of Baluchistān. A spring of sulphurous water at Lakhi, having a temperature ranging from 102° to 124°, flows from the base of a calcareous precipice, 600 feet high, known as the Dhāra hill. The spring, popularly known as the Dhāra Tīrth, is much frequented by persons suffering from skin diseases and rheumatism. Recently it has been cleared, and bathing cisterns have been erected for the convenience of visitors.

Botany. The vegetation is mainly tamarisk, which attains a fair size and is much used by the inhabitants for firewood. The other important trees are the *nīm*, *babūl*, and *pīpal*. The *ak*, the

fibre of which is also used for nets and the smaller kind of ropes, is common in the plains. The mango, plantain, lime, and pomegranate are grown extensively. Groves of date-palms are met with in Kambar and Lārkāna on the banks of canals, and in rice land; and wild olive, almond, and medlar trees abound in the hills.

Fauna.

Wild animals include leopards, black bears, hog, antelope, ibex, hog deer, hyenas, jackals, wolves, foxes, and porcupines. Wild sheep and badgers are also found. Among birds, there are many varieties of duck, *tilūr*, partridges, geese, swans, flamingoes, herons, sand-grouse, snipe, and quail, and water-fowl of various kinds.

Climate and temperature.

The climate of the two northern subdivisions does not materially differ from the rest of Upper Sind. In the Sehwān subdivision the heat is greatest in the northern area, where the proximity of the Lakhi Range, devoid of vegetation and radiating heat, causes a perceptible increase in the temperature of the adjacent country. The average annual maximum and minimum temperatures are 115° and 43° respectively[1].

Rainfall.

The average annual rainfall in the Lārkāna and Mehar subdivisions is estimated at 3 and 2 inches. The fall is somewhat heavier in Sehwān, where it generally averages between 6 and 9 inches. During the hot season, the prevailing wind is from the south; in the cold season it is from the north and east, and is at times piercingly cold and cutting. During March, dust-storms are frequent with high winds and occasional showers of rain, while fierce hot winds called *lūh* blow in May and June, often lasting far into the night. They are fiercest in the forty days succeeding April 15, which are called the *chalīho*.

Natural calamities.

The Lārkāna subdivision is subject to floods or *lets*, which at times cause great destruction to life and property. In 1874, before the construction of the Kashmor embankment, the *let*, starting from the town of the same name in the Frontier District, conjointly with the Jhali *let*, originating in the Sukkur and Shikārpur subdivisions, inundated nearly 100,000 acres of waste and cultivated land, besides destroying portions of 53 villages. Strong embankments have been raised to stop these overflows, and the evil has been greatly reduced. Mehar is subject also to frequent floods from the Western Nāra.

[1] There is no meteorological station in the District, and the temperatures given are those recorded inside dispensaries. If taken under the usual conditions, the average maximum and minimum would be about 7° higher and lower respectively.

History. The history of Lārkāna can be gathered from the articles on SUKKUR and KARĀCHI DISTRICTS, of which it formed a part until 1901. In the feuds which led to the expulsion of the Kalhora dynasty, a large portion of the District was conferred on a Brāhui chieftain in compensation for the murder of a tribesman, but was subsequently resumed by the Tālpurs. The Brāhuis are still numerously represented. After the battle with Shāh Shujā, the Lārkāna subdivision was divided between the Tālpur Mīrs, from whom it passed to the British on the annexation of Sind.

Archaeology. Among the few antiquities of the District are the tombs of Shāh Bahārah, at Lārkāna town, and of Shāhal Muhammad Kalhora, at Fatehpur. SEHWĀN has a fort ascribed to Alexander the Great, and a fine tomb of Lāl Shāhbāz, portions of which date from the fourteenth century. At Khudābād in the Dādū *tāluka*, once a flourishing town but now in ruins, are the tomb of Yār Muhammad Kalhora and an old Jāma Masjid adorned with some fine tile-work.

The people. According to the Census of 1901, the population of the District was 656,083. The population of the present area in 1891 was 594,896, the increase in ten years being 10 per cent. Statistics of the population in 1901, according to *tālukas*, are given in the following table:—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Lārkāna . .	267	1	72	100,827	378	+ 12	3,994
Labdarya . .	356	...	57	68,872	194	+ 10	605
Kambar . .	627	1	92	88,527	141	+ 12	813
Rato-Dero .	325	1	80	72,312	222	+ 18	2,624
Mehar . .	328	...	64	58,434	178	+ 21	627
Nasīrābād .	417	...	65	56,544	135	+ 27	1,289
Kākar . .	445	...	73	49,252	111	+ 3	1,052
Sehwān . .	1,272	2	65	54,779	43	+ 2	1,435
Dādū . .	294	...	53	55,318	188	— 0.02	1,519
Johi . . .	760	...	87	51,218	67	— 0.1	1,377
District total	5,091	5	708	656,083	129	+ 10	15,335

The District contains five towns: LĀRKĀNA, the head-quarters, SEHWĀN, KAMBĀR, RATO-DERO, and BUBAK. Owing to its hilly tracts, the Sehwān *tāluka* is less densely populated than the rest of the District. Lārkāna is the most thickly populated. The language of the District is Sindī, which is spoken by 94 per cent. of the inhabitants. Distributing the

population by religion, Musalmāns form 85 per cent. and Hindus 15 per cent.

Castes and occupations.

The Musalmāns are chiefly Sindīs, Baloch, and Brāhuis. The chief Baloch tribes are the Chandias (12,000), Rinds (37,000), Laghāris (7,000), and Jamālis (6,000); Sindīs include Abras (24,000) and Sammās (188,000); while Jats number 12,000. It is from the Chandia Baloch that the Lārkāna subdivision formerly obtained the name of Chanduka or Chāndko. They are to be found in the west of the District, in the vicinity of the hills. The Jamālis reside on the borders of the desert, the Abras in the south-west of the Lārkāna subdivision; Jats are found dispersed all over the District, and are mainly cultivators and cattle-breeders. The Hindus are mostly Brāhmans and Lohānas, including Amils. As the District was formed after 1901, no statistics of occupation are available[1].

Of 115 Christians, 33 are natives, mostly Roman Catholics. There are no missions.

General agricultural conditions.

Lārkāna contains one of the finest alluvial tracts in the whole of Sind, lying between the Indus, the Nāra, and the Ghār. There is, perhaps, no part of the province so admirably suited for irrigation; and the soil is so productive that it has procured for this tract the name of the 'garden of Sind.' The villages in the Ghāro *tappa* of the Mehar *tāluka* produce good rice; but floods from the Nāra are frequent and often prevent the cultivation of this crop. The Dādū and Sehwān *tālukas* contain the finest wheat land in the whole of Sind. Much cultivation is carried on in the neighbourhood of the Manchhar lake after the subsidence of the annual inundation.

The chief statistics of cultivation in 1903–4 are shown in the table on the next page, in square miles.

Chief agricultural statistics and principal crops.

The staple food-grains are rice and wheat, the areas under which in 1903–4 were 435 and 218 square miles respectively. *Jowār* occupied 362 square miles. Excellent rice crops are produced in the Kambar *tāluka*, and rice has generally been more largely cultivated in the northern *tālukas* of recent years, owing to improvements in canal-irrigation. Wheat is the most prominent crop of the Sehwān *tāluka*. Pulses occupied 228 square miles, the principal being *lang* (202 square miles). The area under sesamum and rapeseed in the same year was

[1] The agricultural population is roughly 500,000; of the rest, about 8,000 are employed in petty industries, about 70,000 are traders, and the balance is made up of day-labourers, Government and railway clerks, and unemployed.

66 square miles, and under cotton one square mile. Sugar-cane, tobacco, indigo, and a large variety of garden vegetables and fruits are grown, principally in the Lārkāna and Mehar *tālukas*. Since the District was formed, advances of 4 lakhs have been made to cultivators under the Land Improvement and Agriculturists' Loans Acts, of which 1·9 lakhs was advanced in 1903–4.

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Lārkāna	263	189	156	27	3
Labdarya	325	145	101	44	53
Kambar	627	447	163	54	...
Rato-Dero	321	173	129	47	11
Mehar	327	187	123	81	6
Nasīrābād	417	209	116	81	...
Kākar	444	210	95	217	...
Sehwān	1,273	178	80	549	15
Dādū	294	169	82	55	4
Johi	760	326	48	301	...
Total	5,051*	2,233	1,093	1,456	92

* This differs from the area shown in the *Census Report* of 1901, being based on more recent information.

Domestic animals.

The domestic animals are the same as in other parts of Sind, the camel being the most useful. They are bred to a considerable extent in the south. Large numbers of *dumba* or fat-tailed sheep are pastured on the western hills. In Sehwān there are two varieties of sheep, of which one is remarkable for having four horns.

Irrigation.

Of the total area cultivated, 1,093 square miles, or 49 per cent., were irrigated in 1903–4. The areas supplied from each source are: Government canals, 231 square miles; private canals, 757 square miles; wells, 7 square miles; and 'other sources,' 98 square miles. Of the numerous canals, the principal are: the Western Nāra (capable of irrigating 457 square miles), Ghār (569 square miles), Sukkur (109 square miles), Phitta canals (9 square miles), Dādū canal (19 square miles), Aral canal (17 square miles), Pritchard canal (13 square miles), Marvi Wah (7 square miles), Nāra *bands* (7 square miles), Ghār *bands* (1 square mile), Wāhur Wah (5 square miles), Rāj Wah and Begāri canal (0·1 square mile). The Western Nāra, navigable by boats from May to September, is a river artificially improved. After flowing through the Lārkāna and Mehar subdivisions, it falls into the Manchhar Lake. The Ghār, which is supposed also to be a natural channel, is very winding, broad, and deep, with level banks. It is largely used for boat traffic, and forms a great highway to Sukkur

via the Indus, as also between Kambar and Lārkāna. Nearly all the canals obtain their supply from the Indus. Of smaller Government canals, the Shahajī Kur and Datejī Kur are the most important. They draw their supply from the Ghār Canal. None of the *zamīndāri* canals is important. The Manchhar Lake provides for the irrigation of a considerable area (25 square miles) in the Sehwān *tāluka*. Numerous hill torrents and rivers are utilized for irrigation in the Mehar subdivision.

Forests.

The Government 'reserved' forests in Lārkāna cover an area of 92 square miles, chiefly situated in the Sehwān subdivision, and are administered by a Deputy-Conservator. These forests lie close to the Indus, and were planted by the Tālpur chiefs as *shikārgāhrs* or shooting preserves. The revenue from forests, which amounts to over Rs. 15,000, is mainly derived from the sale of firewood and timber. With the exception of some good *babūl* plantations, the tree growth is small. In the hills of Sehwān, the *pis* or *pish*, a kind of dwarf-palm, is much used by the Brāhui tribes for manufacturing ropes, twine, sandals, mats, and baskets.

Minerals.

The principal minerals are coarse salt and saltpetre. Alum, sulphur, and mica occur in the hills to the west, but are not worked.

Arts and manufactures.

The manufactures include coarse cotton cloth, carpets, rugs, mats, salt, metal-work, shoes, native saddles, and other leathern goods; dyeing is also an important industry. Bubak is the chief centre of carpet-manufacture; but both carpets and saddle-bags, worked by Baloch and Brāhui women, are imported from Kalāt and sold in the Johi and Sehwān *tālukas*. Native saddles are manufactured in Lārkāna and cotton *lungīs* in Sehwān. There are altogether 33 rice-cleaning factories in the District, situated chiefly at Lārkāna town, Rato-Dero, Kambar, and Nasīrābād. The District has an extensive trade, the exports comprising grain of sorts, wool, cotton, and other agricultural products, and the imports being English piece-goods, silks, and fruits. Lārkāna town is one of the chief grain marts of Sind.

Communications. Roads and railways.

The North-Western Railway runs through the District from Naodero in the Rato-Dero *tāluka* to Sehwān. There are numerous ferries on the Indus and the Western Nāra. The total length of roads is 1,440 miles, of which only 3 miles are metalled. The most frequented roads are covered with dry grass, in order to lay the dust and preserve the surface. The main road runs from Lārkāna to Shikārpur and southwards through Mehar to Sehwān.

District subdivisions and staff.

The *tālukas* are for administrative purposes grouped into three subdivisions, of which two are in charge of Assistant Collectors and one in charge of a Deputy-Collector. The subdivisions are Lārkāna, comprising the LĀRKĀNA, RATO-DERO, LABDARYA, and KAMBAR *tālukas*; Mehar, comprising KĀKAR, MEHAR, and NASĪRĀBĀD; and Sehwān, comprising SEHWĀN, JOHI, and DĀDŪ.

Civil and criminal

The District is within the jurisdiction of the District and Sessions Judge of Sukkur. There are four Subordinate Judges, whose jurisdiction is confined to civil matters and extends to the same class of suits as are tried by the Subordinate Judges in the rest of the Presidency. Besides the criminal courts of the head *munshīs*, *mukhtyārkārs*, and subdivisional officers, three resident magistrates sit at Lārkāna, Mehar, and Dādū. Cattle-theft is prevalent; and wherever Baloch tribes are settled, blood-feuds are not uncommon. The Sind Frontier Regulations are applied to the Rato-Dero, Kambar, Mehar, Kākar, Johi, and Sehwān *tālukas*.

Land revenue administration.

Before the conquest of Sind by the British in 1843, the northern portion of the District was known as the Chāndko *pargana*, and the ownership of the entire lands in each village seems then to have been vested in the *zamīndārs* or headmen and their heirs. They cultivated a portion themselves, leasing the rest to hereditary occupants, who paid *lāpo* or rent to the *zamīndār*, generally in kind, at so many *kāsas*[1] per *bīgha*. A fee, known as *wājāh zamīndāri*, was also claimed by the headman, and levied on the produce. When land was sold, the purchaser became entitled to the *lāpo*, but the *wājāh* was still given to the headman. The *zāmīndar* alone dealt with government or the revenue contractor, and made his own collections from the tenants. The prevailing tenure is still *zamīndāri*, about 419 square miles of the whole area being held in *jāgīr* or revenue free. The first settlement of the Lārkāna subdivision was made by Major Goldney in 1847. It was for seven years, and expired in 1853–4. In 1855–6 the rates in the Lārkāna and Kambar *tālukas* were reduced, and a separate assessment fixed on cultivation by wheel or well. The topographical survey commenced in 1859, and the new settlement was introduced in all the *tālukas* for periods ranging from nine to ten years. The rates have since been revised from time to time. The rates per acre of the latest revenue settlement (1893) are: garden land, Rs. 3–10 (maximum Rs. 5–4, minimum Rs. 2–8); rice lands, Rs. 3–9 (maximum Rs. 5–4, minimum Rs. 2–8);

[1] A *kāsa* is a dry measure equal to about one-third of a maund.

and 'dry' land, Rs. 2–11 (maximum Rs. 3–0, minimum Rs. 1–12).

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees :—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	12,22	20,45	25,45	24,50
Total revenue . .	13,18	22,14	27,14	29,00

There are five municipalities: LĀRKĀNA, KAMBAR, RATO-DERO, SEHWĀN, and BUBAK. Outside the limits of these, local affairs are managed by a District board and 10 *tāluka* boards, with an income and expenditure of nearly 2 lakhs in 1903–4. The principal source of income is the land cess. In 1903–4 nearly Rs. 75,000 was expended upon buildings and the maintenance of roads. Municipalities and local boards.

The District Superintendent of police is assisted by three inspectors. There are four police stations in the District. The total force numbers 559, of whom 15 are chief constables, 109 head constables, and 435 constables. There are ten subsidiary jails in the District, with accommodation for 322 prisoners. The average number of prisoners in 1904 was 68, of whom one was a female. Police and jails.

Lārkāṇa stands twenty-first among the twenty-four Districts of the Presidency in the literacy of its population, of whom 2·3 per cent. (2·8 males and 0·4 females) are able to read and write. The number of schools in 1903–4 was 574 (inclusive of 235 private), with 16,527 pupils, of whom 1,890 were females. There were only two schools for girls. Of the 339 educational institutions classed as public, secondary schools numbered 7 and primary 332. Of these, 122 are managed by local boards and 10 by municipalities, 206 are aided and one is unaided. The total expenditure on education in 1903–4 was over one lakh, of which Rs. 9,100 was derived from fees. Of the total amount, 86 per cent. was devoted to primary schools. Education.

The District possesses 8 dispensaries, containing accommodation for 68 in-patients. In 1904 the number of cases treated was 70,100, including 604 in-patients, and 2,848 operations were performed. The expenditure was Rs. 15,700, of which Rs. 13,000 was met from Local and municipal funds. Hospitals and dispensaries.

The number of persons successfully vaccinated in 1903–4 was 14,631, representing a proportion of 22 per 1,000. Vaccination.

[A. W. Hughes, *Gazetteer of the Province of Sind* (1876).]

Lārkāna Subdivision.—Subdivision of Lārkāna District, Sind, Bombay, composed of the LĀRKĀNA, LABDARYA, KAMBAR, and RATO-DERO *tālukas*.

Lārkāna Tāluka.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 27° 27′ and 27° 46′ N. and 68° 1′ and 68° 28′ E., with an area of 267 square miles. The population in 1901 was 100,827, compared with 90,151 in 1891. The *tāluka* contains one town, LĀRKĀNA (population, 14,543), the head-quarters; and 72 villages. The density, 378 persons per square mile, is the highest in the District. The land revenue and cesses in 1903–4 amounted to 4·2 lakhs. The *tāluka* is flat, and is chiefly watered by the Ghar Canal and its branches. The south-western portion, irrigated by the Western Nāra, is said to produce the finest rice in Sind. Wheat is largely grown on the banks of the Indus; and several mango groves and date plantations surround Lārkāna town.

Labdarya.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 27° 6′ and 27° 30′ N. and 67° 59′ and 68° 24′ E., with an area of 356 square miles. The population in 1901 was 68,872, compared with 62,659 in 1891. The *tāluka* contains 57 villages, of which Dokri is the head-quarters. The density, 194 persons per square mile, largely exceeds the District average. The land revenue and cesses in 1903–4 amounted to 2·4 lakhs. The soil, though lacking facilities for irrigation, is more fertile than elsewhere. Rice is the chief crop, the water supply being obtained from the Western Nāra Canal; but wheat of excellent quality and gram are grown on the lands annually flooded by the Indus. Mango groves and gardens are more numerous here than in the rest of the District.

Kambar Tāluka.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 27° 19′ and 27° 52′ N. and 67° 14′ and 68° 10′ E., with an area of 627 square miles, of which about one-fifth is *jāgīr* land belonging to Ghaibi Khān Chandia. The population in 1901 was 88,527, compared with 79,019 in 1891. The *tāluka* contains one town, KAMBAR (population, 4,807), the head-quarters; and 92 villages. The density, 141 persons per square mile, slightly exceeds the District average. The land revenue and cesses in 1903 amounted to 3·6 lakhs. The *tāluka* depends upon the Ghar Canal and its branches for cultivation. Rice of excellent quality is the principal crop; but owing to excessive irrigation the country is malarious. The same circumstance renders it

one of the finest shooting grounds for wild-fowl in Northern India.

Rato-Dero Tāluka.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 27° 37′ and 28° N. and 68° 4′ and 68° 33′ E., with an area of 325 square miles. The population in 1901 was 72,312, compared with 61,268 in 1891. The *tāluka* contains one town, RATO-DERO (population, 4,281), the head-quarters; and 80 villages. Excepting Lārkāna, this is the most thickly populated *tāluka* in the District, with a density of 222 persons per square mile. The land revenue and cesses in 1903–4 amounted to more than 2·9 lakhs. The *tāluka* is irrigated by the Sukkur, Nasrat, and Ghar Canals. The staple crop is rice. Like other well-irrigated *tālukas*, Rato-Dero is flat and has few distinctive features. It contains about 104 square miles of 'reserved' forest.

Mehar Subdivision.—Subdivision of Lārkāna District, Sind, Bombay, composed of the MEHAR, NASĪRĀBĀD, and KĀKAR *tālukas*.

Mehar.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 27° 2′ and 27° 21′ N. and 67° 30′ and 68° 8′ E., with an area of 328 square miles. The population in 1901 was 58,434, compared with 48,320 in 1891. The *tāluka* contains 64 villages, of which Mehar is the head-quarters. The density, 178 persons per square mile, largely exceeds the District average. The land revenue and cesses in 1903–4 amounted to 2·8 lakhs. The *tāluka* is irrigated by the Western Nāra and one of its feeders, the staple crops being *jowār* and rice. Prior to the floods of 1874 Mehar was very fertile, but the water has now become brackish and all the gardens have perished. Cultivation near the hills on the west depends entirely upon the rainfall.

Nasīrābād Tāluka.—*Tāluka* in Lārkāna District, Sind, Bombay, lying between 27° 13′ and 27° 33′ N. and 67° 33′ and 68° 6′ E., with an area of 417 square miles. The population in 1901 was 56,544, compared with 44,644 in 1891. The *tāluka* contains 65 villages, of which Wārah is the head-quarters. The density, 135 persons per square mile, slightly exceeds the District average. The land revenue and cesses in 1903–4 amounted to 2·8 lakhs. Nasīrābād is a rice-producing *tāluka* and depends for its irrigation upon the Chilo Wah and Nasīr Wah, both subsidiaries of the Ghar Canal. On the south the soil contains much salt and is unfit for cultivation.

Kākar.—*Tāluka* of Lārkāna District, Sind, Bombay, lying

between 26° 53′ and 27° 14′ N. and 67° 12′ and 67° 57′ E., with an area of 445 square miles. The population in 1901 was 49,252, compared with 47,888 in 1891. The *tāluka* contains 73 villages, of which Khairpur Nathan Shāh is the head-quarters. The density, 111 persons per square mile, is slightly below the District average. The land revenue and cesses in 1903-4 amounted to 2·1 lakhs. The *tāluka* depends for irrigation on the Western Nāra Canal, but suffers from its position at the lower end of the canal, the waters of which are largely exhausted by the northern *tālukas*. The western portion depends upon rain and a few hill-torrents for cultivation. *Jowār* is the principal crop.

Sehwān Subdivision.—Subdivision of Lārkāna District, Sind, Bombay, composed of the Dādū, Johi, and Sehwān *tālukas*.

Sehwān Tāluka.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 25° 53′ and 26° 39′ N. and 67° 29′ and 67° 58′ E., with an area of 1,272 square miles. The population in 1901 was 54,779, compared with 53,574 in 1891. The *tāluka* contains two towns—Sehwān (population, 5,244), the head-quarters, and Bubak (3,300)—and 65 villages. Owing to its physical features this *tāluka*, with a density of only 43 persons per square mile, is less thickly populated than any other. The land revenue and cesses in 1903-4 amounted to 1·6 lakhs. Sehwān is the most picturesque *tāluka* in the District, for the hills curve south-west almost up to the Indus, while the Manchhar Lake forms its north-western boundary. The lands round the lake are irrigated by its overflow and produce excellent wheat, but south of them there is little regular cultivation. The Chitawah, a meandering stream, which enters the *tāluka* from the north and winds towards the Indus, is the chief source of irrigation in the north-east. The riparian lands of the Indus are irrigated by small watercourses which debouch from and again flow into the river.

Dādū Tāluka.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 26° 34′ and 27° 3′ N. and 67° 41′ and 68° 3′ E., with an area of 294 square miles. The population in 1901 was 55,318, compared with 55,454 in 1891. The *tāluka* contains 53 villages, of which Dādū is the head-quarters. The density, 188 persons per square mile, is much above the District average. The land revenue and cesses amounted in 1903-4 to 1½ lakhs. The Indus runs along the eastern boundary, and the area is constantly changing owing to the vagaries of the river. The lands bordering on the river are

inundated annually, and produce fine crops of wheat and gram. Much of the *tāluka* is watered by small watercourses supplied directly by the Indus. The western portion is supplied by the Western Nāra Canal, either directly or by its branches, the Makki Wah and Kadan Wah. The Phitto Wah (18 miles) is the only other canal of importance. The area west of the railway has few irrigational facilities.

Johi.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 26° 7′ and 27° N. and 67° 11′ and 67° 47′ E., with an area of 760 square miles. The population in 1901 was 51,218, compared with 51,919 in 1891. The *tāluka* contains 87 villages, of which Johi is the head-quarters. The density, 67 persons per square mile, is much below the District average. The land revenue and cesses in 1903–4 amounted to 1·4 lakhs. About a quarter of the *tāluka* is irrigated by the Western Nāra system and the Manchhar Lake. The remainder depends upon the rainfall, and the harvest is therefore precarious. The soil has great capabilities, and with seasonable rain three crops of *jowār* are obtained from one sowing. Migration to the irrigated tracts accompanies years of scanty rainfall. The Kīrthar hills bound the *tāluka* on the west.

Bubak.—Town in the Sehwān *tāluka* of Lārkāna District, Sind, Bombay, situated in 26° 27′ N. and 67° 46′ E., 3 miles from a station on the North-Western Railway. Population (1901), 3,300. The town was constituted a municipality in 1854, and had an average income of Rs. 5,000 during the decade ending 1901. In 1903–4 the income was Rs. 6,000. Carpets of good quality are manufactured. The town contains a central warehouse for *bhang*, which is grown under licence in the neighbourhood. Owing to floods caused by the overflow of the Manchhar Lake, some of the *zamīndārs* have been of late years considerably impoverished. The public health is also affected by the same cause. In 1869 Bubak suffered severely from cholera. The town contains an English school and one vernacular school, attended respectively by 15 and 72 pupils.

Kambar Town.—Head-quarters of the *tāluka* of the same name in Lārkāna District, Sind, Bombay, situated in 27° 36′ N. and 68° 3′ E., about 12 miles by road west-by-north from Lārkāna town, and a station on the North-Western Railway. Population (1901), 4,807. The municipality, established in 1862, had an average income during the decade ending 1901 of Rs. 12,300, derived mostly from town dues, cattle-pound fees, and fisheries. In 1903–4 the income was Rs. 17,000.

The town was plundered by the Baloch in 1848, and almost destroyed by fire in the following year. It contains a dispensary, an Anglo-vernacular and a vernacular school, attended respectively by 46 and 93 pupils.

Khudābād.—Ruined town in the Dādū *tāluka* of Lārkāna District, Sind, Bombay, situated in 26° 40′ N. and 67° 46′ E., 16 miles north-east of Sehwān on the North-Western Railway. Thornton writes of it as follows:—

> 'Little more than thirty years ago it rivalled Hyderābād in size and population; yet now not one habitable dwelling remains. It was a favourite residence of the Tālpur chiefs of Sind, and the remains of many of them rest here in tombs of neat but plain construction.'

At present the chief objects of interest are the Masjid, built in 1710, and decorated with coloured tiles; and the tomb of Yār Muhammad Kalhora, about a mile away, which is similarly decorated. The tomb is in fair repair, but the mosque has been greatly damaged and is falling into ruin.

Lārkāna Town.—Head-quarters of Lārkāna District, Sind, Bombay, situated in 27° 33′ N. and 68° 16′ E., on the south bank of the Ghār canal, 40 miles south-west of Shikārpur town, and 36 north-east of Mehar, and on the North-Western Railway. Population (1901), 14,543. The country surrounding Lārkāna is fertile and populous, and perhaps the finest tract in the whole of the province. The spacious walks, well laid-out gardens, and luxuriant foliage have gained for Lārkāna the title of the 'Eden of Sind.' It is one of the most important grain marts of Sind, and is famous for a variety of rice called *sugdāsi*. There is a large local traffic in metals, cloth, and leather. The principal manufactures are cloth of mixed silk and cotton, coarse cotton cloth, metal vessels, and leathern goods. The town contains a dispensary, an Anglo-vernacular school attended by 80 pupils, and a vernacular school with three branches, attended altogether by 379 pupils. The chief local object of interest is the tomb of Shāh Bahārah, who was a military officer of Nūr Muhammad Kalhora and died in 1735. Of modern buildings the most noteworthy are the Collector's office, a fine domed building with an ornamental Darbār hall, erected in 1902; and a neatly-built school and boarding-house for the sons of *zamīndārs*, erected by public subscription in the same year. This school has 60 inmates and teaches English and Sindī. The municipality, established in 1855, had an average income of Rs. 46,000 during the decade ending 1901. In 1903–4 the income was Rs. 54,000.

Rato-Dero Town.—Head-quarters of the *tāluka* of the same name in Lārkāna District, Sind, Bombay, situated in 27° 48′ N. and 68° 20′ E., 18 miles north-east by north of Lārkāna town. Population (1901), 4,281. Local trade is chiefly in grain. Rato-Dero was formerly the encampment of a chief of the Jalbāni tribe called Rato. The municipality, established in 1862, had an average income of Rs. 8,878 during the decade ending 1901. In 1903–4 the income was Rs. 14,000. The town contains a dispensary, a vernacular school attended by 118 pupils, and an Anglo-vernacular school attended by 34 pupils.

Sehwān Town.—Head-quarters of the *tāluka* of the same name in Lārkāna District, Sind, Bombay, situated in 26° 26′ N. and 67° 54′ E., on a branch of the North-Western Railway, and on the main road from Kotri to Shikārpur via Lārkāna, 84 miles north-north-west of Kotri, and 95 miles south-south-west of Lārkāna; elevation above sea-level 117 feet. Population (1901), 5,244. The river Indus, which formerly flowed close to the town, has now quite deserted it. A few miles south of Sehwān, the Lakhi hills terminate abruptly, forming a characteristic feature of this portion of the *tāluka*. The Muhammadan inhabitants are for the most part engaged in fishing; the Hindus in trade. A large section of the people are professional mendicants, supported by the offerings of pilgrims at the shrine of Lāl Shāhbāz. The tomb containing the remains of this saint is enclosed in a quadrangular edifice, covered with a dome and lantern, said to have been built in 1356, and having beautiful encaustic tiles with Arabic inscriptions. Mirza Jānī, of the Tarkhan dynasty, built a still larger tomb to this saint, which was completed in 1639. The gate and balustrade are said to have been of hammered silver, the gift of Mīr Karam Alī Khān, Tālpur, who also crowned the domes with silver spires. The chief object, however, of antiquarian interest in Sehwān is the fort, ascribed to Alexander the Great. This is an artificial mound 80 or 90 feet high, measuring round the summit 1,500 by 800 feet, and surrounded by a broken wall. The interior is strewn with broken pottery and tiles. The mound is evidently an artificial structure, and the remains of several towers are visible. The fortifications are now in disrepair. An old Christian graveyard below the fort contains a few tombs dating from the early part of the nineteenth century. Sehwān is undoubtedly a place of great antiquity. Tradition asserts that the town was in existence at the time of the first Muhammadan invasion of

Sind by Muhammad bin Kāsim Safiki, about A.D. 711; and it is believed to be the place which submitted to his arms after the conquest of Nerankot, the modern Hyderābād.

The town was constituted a municipality in 1854, and had an average income during the decade ending 1901 of Rs. 12,200. In 1903-4 the income was Rs. 14,000. The transit trade is mainly in wheat and rice; and the local commerce, in cloth and grain. The manufactures comprise carpets, coarse cloth, and pottery. The art of seal-engraving, which was formerly much practised, is now extinct. The town contains a Subordinate Judge's court, a dispensary, and a middle school.

Boundaries, configuration, and hill and river systems.

Thar and Pārkar.—District in the east of Sind, Bombay, lying between 24° 13′ and 26° 15′ N. and 68° 51′ and 71° 8′ E., with an area of 13,941[1] square miles. It is bounded on the north by the State of Khairpur; on the east by the States of Jaisalmer, Malāni, Jodhpur, and the Rann of Cutch; on the south by the Rann of Cutch; and on the west by Hyderābād District.

The District of Thar and Pārkar may be divided into two portions—the one called 'Pat,' or plain of the Eastern Nāra, including the Nāra subdivision; and the other the 'Thar' or desert. The former, in its western part, rises from 50 to 100 feet above the level of the Sind plain, and some of the sandhills in it may be 100 feet higher, but they are not so elevated as in the Thar. Formerly, this part of the District exhibited a dry and arid appearance, owing to the insufficient supply of water in the Nāra; but since the construction of the Eastern Nāra Canal, and the consequent additional flow of water brought down by it, the valley of the Nāra is now covered with jungle and marsh. Through this portion flow the Jāmrao and Mithrao Canals, the former recently constructed, the latter an artificial stream running to the westward of the Nāra, but in some degree parallel to it for a distance of about 80 miles. In many parts beds of rivers long dried up are found intersecting the arid tract of the Thar; and these would seem to show that the waters of the Indus, or of some of its branches, once flowed through it, fertilizing what is now a wilderness, and finding their way to the sea either by one of the eastern mouths, or through the Rann or great salt marsh of Cutch. Quantities of bricks and pottery have also been found in various places scattered over the surface.

Geology.

The Thar, or desert portion, consists of a tract of sandhills, which present the appearance of waves, running north-east and

[1] This was the area in 1905-6.

south-west; these hills become higher towards the west, and are composed of a fine but slightly coherent sand. To the south-east, again, of the Thar is the Pārkar tract, which differs from the former in possessing hill ranges of hard rock, the highest being not more than 350 feet above the surrounding level. There are sandhills also in this portion; but towards the east they become less elevated, and merge at last into a large open plain of stiff clay, through which, in places, limestone occasionally crops out. The peninsula of Pārkar, which in its extreme south-eastern direction juts out into the Rann of Cutch, is flat and level, except in the immediate vicinity of Nagar Pārkar, where there is an extensive area of elevated land known as the Kārunjhar hills, composed mostly of syenite rock.

The common trees of the Nāra valley are the *babūl*, *nīm*, *pīpal*, *lai*, *siriha*, and *kirir*, while the *jar*, *kumbhat*, *kandi*, *raneri*, and a few other species flourish in the desert tracts. It is remarkable that, owing to differences of soil, the trees grown in one portion of the District cannot thrive in the other. Botany.

The principal wild animals are the hog, *phārā* or hog deer, *chinkāra* or gazelle, wolf, jackal, fox, jungle-cat, hare, otter, &c. Among birds are the bustard, *tilūr*, geese, wild-fowl of many varieties, such as the mallard, widgeon, whistling teal, snipe, coot, water-hen, adjutant, pelican, flamingo, and various kinds of wading birds. Other birds found are the grey and black partridge, sand-grouse of several varieties, plover, and quail, the eagle, vulture, kite, several kinds of hawks, crows, owls, &c. Snakes are very common, especially in the hot season, and crocodiles abound in the Dhoro Nāro in the Nāra valley. The wild hog, black partridge, and water-fowl are met with only in the Nāra tract. The *gūrkhar* or wild ass frequents the Pārkar, and the hyena and lynx are found in the Thar. Fauna.

The fisheries are confined entirely to the Nāra and the *dandhs* fed by it, the fish most commonly caught being the *jerki singāro*, *dambhro*, *marko*, *popri*, *gandan*, *goj* (eels), *chitori*, *haili*, *makar*, *patno*, and *kuro*.

The climate of the desert tract is somewhat similar to that of Cutch, and is subject to great variations of temperature, being excessively hot in the summer and very cold in the winter, the cold increasing as the sandhills are approached. From the beginning of November to the end of February the weather is pleasant and bracing, after which the hot winds set in, accompanied with heavy dust-storms. The glare and heat during the summer months are intense. The mean annual temperature at Climate and temperature.

Umarkot is 76°, at Pārkar 84°, and at Mithi 76°. The climate of the Nāra valley is temperate, but very malarious.

Rainfall. The rainfall is not equal throughout the extensive area of the District, being heavier in Pārkar than in either the Nāra or Umarkot *tālukas*. The average yearly fall at Umarkot and Nagar Pārkar for three years ending 1903 was found to be 6 and 9 inches, mostly supplied by the south-west monsoon in July and August. Taken as a whole, the rainfall is heavier than in other parts of Sind.

History. Very little is known of the early history of the District. The desert portion and Pārkar were formerly under the exclusive administration of the Political Agent in Cutch. The Soda Rājputs, the upper class of the District, who are said to be descended from Paramāra Soda, are supposed to have come into this part of Sind from Ujjain about 1226, when they quickly displaced the rulers of the country. Other authorities, however, state that they did not conquer the country from the Sūmras, the dominant race, before the beginning of the sixteenth century. The Sodas, in their turn, succumbed to the Kalhoras about 1750, since which period the District has been subject more or less to Sind. On the fall of the Kalhora dynasty, it came under the domination of the Tālpurs, who built a series of forts in order to overawe the warlike population. In the Mithi and Islāmkot tract, the Tālpurs are said by Raikes to have exacted two-fifths of the produce of the land; but no regular revenue system was introduced till the years 1830 and 1835, when disturbances at once took place. The Mīrs sent a large force to reduce the people to submission; and several chiefs were taken prisoners, and not released until they had paid heavy fines. The Thar and Pārkar District was for a long time the head-quarters of banditti, who made plundering excursions into Cutch and other neighbouring Districts. The British Government therefore interfered in 1832, and through the agency of Captain (afterwards General) Roberts suppressed the marauders. Posts of mounted men were retained in the country for the preservation of order until the conquest of Sind itself in 1843.

The inhabitants of this District then evinced a desire to be placed under Cutch; and with this view the divisions of Baliāri, Diplo, Mithi, Islāmkot, Singāla, Virāwah, Pitapur, Bhodesar, and Pārkar were in 1844 made over to that State. Umarkot, Gadra, and other tracts on the Nāra became a portion of Hyderābād District, or rather formed part of the subdivision of Mīrpur. All emoluments from revenue-free lands enjoyed

by *pātels* or headmen, as well as cesses on Hindu marriages, were abolished, and the chiefs were further forbidden to bear arms. In consequence, it would seem, of these prohibitions, the District was in 1846 in open rebellion. But quiet was soon afterwards restored; and the Soda Rājputs, who appear to have been the prime movers in this disturbance, were called upon by Government to state their grievances, of which the following is a brief outline. They contended for their right of levying a tax of Rs. 26½ on every marriage among the Kirar Baniyās, and also a fee of one rupee's worth of cloth for enforcing debts due to that caste. They complained that the fields they formerly enjoyed revenue free were either reduced in number or taken away altogether from them, and they maintained that in times of scarcity they were entitled to exemption from all payment of duties on opium and grain. They asserted their right as Sodas to receive food when travelling from Baniyās without any payment, and that this caste was also bound to supply them with bedsteads and coverlets. They further desired to be permitted to receive, as formerly, a portion of the Umarkot customs. The Government, in reply to this list of grievances, allowed the Sodas, as compensation for the fees derived by them from the Kirār Baniyās, the annual interest at 5 per cent. on the sum of Rs. 14,000, and permitted several of the tribe to hold a certain number of fields revenue free, provided they undertook to cultivate them. They also received a share in the Umarkot customs, but the rest of their demands were not complied with.

In 1856 the desert portion of the District, together with Pārkar, which had been administered by the Assistant Political Agent in Cutch since 1844, was incorporated in the Province of Sind. In 1859 a rebellion broke out in the District, necessitating the dispatch of a military force under Colonel Evans from Hyderābād to quell it. This officer in May of that year occupied the town of Nagar Pārkar, and captured the Rānā, driving back in the following month a large body of Kolīs, who had ventured to attack the place. The Rānā and his minister were in 1868 tried for sedition, and convicted, the former being sentenced to fourteen years' and the latter to ten years' transportation. From that period down to the present time, Thar and Pārkar has enjoyed peace and quietness.

Archaeology. The remains of several old temples are to be seen in the Pārkar portion of the District. One of these is a Jain temple, 14 miles north-west of Virāwah, which contained an image of great sanctity and repute known under the name of Gori.

Near the same place, also, are the remains of an ancient city called Pāri Nagar, covering 6 square miles in area and strewn with marble pillars. It is reported to have been founded in A.D. 456 by Jeso Paramāra of Balmir, and to have been very wealthy and populous; its final decay is said to have taken place some time during the sixteenth century. The ruins of five or six Jain temples still exist, displaying some excellent sculpture and beautifully executed designs. Another ruined city is Ratakot, situated on the Nāra, south of the town of Khipra, and about 20 miles distant from the village of Rānāhu. Near Mīrpur Khās are the ruins of Kahu, which is said to have been a large town during the period of Sūmra and Sammā rule in Sind. Kahu is variously supposed to have been destroyed as a result of the tyranny of king Dolora of Aror, or by Alā-ud-dīn of Delhi. There are several forts in different parts of the District, such as those of Islāmkot, Mithi, Naokot, and Singāla; but they are, comparatively speaking, of modern erection, having been built for the most part under the Tālpur dynasty. They are now fast falling into decay, and the materials are used for building purposes. The chief object of interest to the archaeologist is the ruined city of BRĀHMANĀBĀD, supposed to have been destroyed by an earthquake in the eighth century, and containing numerous relics of that period.

The people.

The population of the District has been: (1872) 230,038, (1881) 257,565, (1891) 358,181, and (1901) 363,894, showing a rise of 58 per cent. in thirty years. This great increase is largely due to the immigration from the Punjab and Rājputāna of settlers on the lands newly made available for cultivation by the construction of the Jāmrao Canal and other irrigation works. Since 1901 the population has further increased to 389,714, and is now (1906) distributed in *tālukas* as shown in the table on the next page.

The mean density of the population is 28 persons per square mile, the lowest average of any District in the Bombay Presidency. The languages spoken are Sindī and Kachhī (a dialect of Gujarātī spoken in Cutch). Formerly, when the District was administered by the Political Agent of Cutch, official correspondence was carried on in Gujarātī. Sindī is spoken by 229,893 persons, or 63 per cent. of the population. Musalmāns form 58 per cent. of the total, and Hindus 42 per cent.

Castes and occupations.

The Musalmān population is largely composed of Baloch (60,000), among whom the Rind tribe are an important element, and of Sammā Sindīs (52,000). Among Hindus, the trading Lohānas (32,000) are conspicuous here as elsewhere in Sind,

and there are 16,000 Rājputs. The Soda tribe, formerly the dominant race in Thar and Pārkar, are of Rājput origin, and warlike in character; many of them enjoy *jāgīrs* or political pensions from the British Government. The rest are mainly low-caste or wild tribes, such as Dhers (31,000), Kolīs (13,500), and Bhīls (21,000). The Bhīls rank very low in the social scale, and, like the Kolīs, are much addicted to theft. The Udejas, who came originally from the west of Sind, are noticeable among the nomadic tribes of the District; they are a fine athletic race, well behaved, and inclined to turn to agricultural pursuits. Criminal tribes under the names of Wasan, Khaskheli, Kiria, and Rajar, known as Hurs or Lurs, are found in the District; but, taken as a whole, the inhabitants are now a peaceable folk, neither so litigious nor so quarrelsome as the rest of the Sind population. They place great reliance on *panchāyat* awards. Agriculture supports 60 per cent. of the population, and industries 18 per cent.

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Umarkot	1,461	1	110	49,118	34	+ 14	385
Khipro	2,249	...	125	54,681	24	+ 16	498
Sanghar	830	...	72	40,341	49	− 2	318
Mīrpur Khās	457	1	135	37,273	82	+ 34	772
Jamesābād	505	...	184	24,038	48	+ 25	445
Pithoro	481	...	128	37,713	78	...	Not available.
Sinjhoro	479	...	131	37,230	78	...	Not available.
Mithi	1,563	...	46	26,154	17	− 29	517
Diplo	1,503	...	42	16,886	11	− 29	92
Chāchro	2,795	...	40	40,925	15	− 17	214
Nagar	1,618	...	31	25,355	16	− 38	398
District total*	13,941	2	1,044	389,714	28	+ 2	...

* Since the Census of 1901 two new *tālukas*—Pithoro and Sinjhoro—have been constituted.

The District contains only 30 Christians, of whom 5 are natives. The Zanāna mission secured a grant for a schoolhouse in 1905.

General agricultural conditions.

There are throughout Thar and Pārkar District three seasons in which agricultural operations are carried on: namely, *kharīf*, *rabi*, and *adhāwa*; but the times of sowing and reaping differ somewhat in the Nāra tracts from those in the Thar or desert portion of the District. These differences can be best exhibited in a tabular form, and the two following tables are accordingly given, which show also the various crops produced in each season:—

NĀRA TRACTS

Seasons.	Time when		Description of crop.
	Sown.	Reaped.	
1. *Kharīf*.	June to middle of August.	Middle of October to middle of December.	Rice, *jowār*, *bājra*, *til*, cotton, tobacco, hemp, &c.
2. *Rabi*	Middle of September to end of December.	January to April.	Wheat, barley, *sarihu*, *jāmbho*, and *kumba*.
3. *Adhāwa*	February.	April and May.	Cotton, *jowār*, *mūng*, and melons.

THAR AND PĀRKAR

Seasons.	Time when		Description of crop.
	Sown.	Reaped.	
1. *Kharīf*.	June and July.	October and November.	*Jowār*, *bājra*, *til*, and *mūng*.
2. *Rabi*	October and November.	March and April.	Wheat, barley, *jāmbho*, *sirsu*, and *kurar*.
3. *Adhāwa*	January.	May and June.	Cotton, *jowār*, *mūng*, and water-melons.

The prevailing soil is a light loam called by the natives *gasar*, a medium between stiff clay and fine sand.

Chief agricultural statistics and principal crops.

The chief statistics of cultivation in 1903–4 are shown in the following table, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Umarkot	1,461	317	83	240	35
Khipro	2,249	383	117	95	22
Sanghar	829	173	70	514	8
Mīrpur Khās	456	280	127	136	...
Jamesābād	505	274	143	187	...
Pithoro	479	340	126	98	3
Sinjhoro	480	291	116	98	...
Mithi	1,563	195	...	201	...
Diplo	1,503	48	...	128	...
Chāchro	2,795	570	...	51	...
Nagar	1,618	428	...	291	...
Total	13,938	3,299	782	2,039	68

Owing to the construction of the Jāmrao Canal and its branches, the cultivation of the District is increasing yearly. About 23 per cent. of the cultivable area is occupied and cultivated. The chief crops are: rice (116 square miles), *jowār* (17 square miles), *bājra* (711 square miles), wheat (160 square

miles), cotton (172 square miles), and oilseeds (64 square miles); pulses, fruits, and vegetables are also grown. Wild products include elephant-grass (*Typha elephantina*), from which hand-fans are made; *paban* or lotus plant; and various grasses from which ropes and mats are manufactured. Rice and wheat are cultivated mostly in the irrigated areas.

Improvements in agricultural practice. Experiments attended with satisfactory results have been made in introducing superior descriptions of wheat and cotton, a soft white variety of the former having been introduced in the Nāra valley, where the area under this cereal averages about 30,000 acres annually. The American-Dhārwār cotton has showed fair promise, especially when sown on land irrigated by silt water, and the Assam and Egyptian varieties have been cultivated with some success. During the decade ending 1903-4 more than 2 lakhs was advanced to cultivators under the Land Improvement and Agriculturists' Loans Acts, of which Rs. 61,000 was advanced in 1902-3 and Rs. 29,000 in 1903-4.

Domestic animals. Among domestic animals the only remarkable kind is a species of white ass, capable of carrying considerable loads, which is reported to be indigenous but may have been introduced originally from Persia.

Irrigation. Of the total area cultivated, 782 square miles, or 24 per cent., were irrigated in 1903-4. The canal system, which is confined solely to that part watered by the Nāra, there being no rivers or canals in the Thar and Pārkar proper, includes the Mithrao, JĀMRAO, and Eastern Nāra. The Eastern Nāra is a natural channel, and most probably at some remote period the outlet to the sea of the waters of some great river like the Indus, together with its branches, the Thar, Chor, and Umarkot Canals. The area irrigated by the main channel is 62 square miles and by the branches over 161 square miles, of which the Thar supplies 80 square miles. The Mithrao Canal was commenced in 1858-9, in order to irrigate the western or more elevated portions of the District. It is upwards of 93 miles in length (or with its branches, 155 miles), having its head in the Makhi *dandh* or weir. It supplies 237 square miles. The Jāmrao Canal, which irrigates 365 square miles in this District, was opened in 1899-1900. The supply is perennial.

Forests. The forests are of little importance. A few tracts recently 'reserved' supply timber, fuel, and fodder, but the supply largely exceeds the demand. In 1903-4 the forest receipts amounted to Rs. 3,622, of which more than 78 per cent. was derived from grazing and fodder. The forests are in charge of

the Deputy-Commissioner, who is *ex-officio* Divisional Forest Officer.

Minerals. Salt-pans were worked to a small extent near Bakār until 1878, when they were closed. Soda is obtained from the *dandhs* and exported; and *chiroti*, a sulphate of lime or gypsum, is found near Ghulām Nabi-jo-got. In the Umarkot plains there is a very large extent of *pat* or salt waste, especially on the north-west side, bordering on Khipro and Hāla. All along the Nāra are *dandhs* for about 56 miles, from which much salt is produced, mostly used for the curing of fish. The manufacture or removal of salt, however, is strictly prohibited throughout the District. The only licit sources of supply are the deposits at Dilyār and Saran. In the Diplo and Mithi *tālukas*, extensive salt lakes contain almost unlimited supplies of this commodity.

Arts and manufactures. The manufactures consist of woollen blankets and bags, camel saddles and covers, and coarse cotton cloths. Woollen rugs are manufactured by the Baloch who have settled in the Nāra valley and the desert. Women are very skilful in silk and cotton embroidery work, but the prices realized scarcely repay the labour. There are two cotton-cleaning and pressing factories at Mīrpur Khās, and one at Shādipali. There are two rice-husking machines at Shādipali, and one at Dhoro Nāro, with an annual out-turn of 345,420 *maunds*. Salt is manufactured at Dilyār and Saran.

Commerce and trade. The District manufacturers have no direct communication with Karāchi or Bombay, but the European and native firms of Karāchi keep agents at Mīrpur Khās, Shādipali, Dhoro Nāro, and Umarkot. The exports from Thar and Pārkar consist principally of grain, wool, *ghī*, camels, horned cattle, hides, fish, salt, soda, and *pan* or *pana*, a kind of reed from which fans are made. The grain (chiefly rice and wheat), cattle, goats, and sheep are sent to Gujarāt, Pālanpur, and Jodhpur; hides and wool to Hyderābād; *ghī* to Cutch and Gujarāt; and salt, fish, soda, and *pan* to Hyderābād and Karāchi. The chief imports are cotton, metals, dried fruits, dyes, piece-goods, silk, sugar-candy, and tobacco.

A fair is held yearly at the town of Pithoro, near Akri, in the month of September, in honour of Pithora, a spiritual guide among the Mengwār community, and is attended by about 20,000 people, principally of that tribe. Several other small fairs are held in various parts of the District.

Communications. In addition to a number of roads which place the District in direct communication with Hyderābād, the railway line

between Hyderābād and Shādipali, which has been converted into a narrow-gauge line, has been pushed through the District to Jodhpur and Bīkaner, and has been connected with the Rājputāna-Mālwā line at Mārwār junction since 1901. Railways and roads.

Travelling in Thar, the desert portion of the District, is very tedious and difficult, owing to the sandhills which have constantly to be crossed. Umarkot, the chief town, is connected with Hyderābād by a good road, bridged throughout, except between Garhar and Sasebkethal. The lengths of road maintained by the Public Works department and the local boards are respectively 329 and 2,206 miles, all unmetalled. The length of roadside avenue of trees is estimated at 128 miles.

Thar and Pārkar District is in charge of a Deputy-Commissioner, who is *ex-officio* District Judge and Superintendent of police, assisted by two Deputy-Collectors, one in charge of each of the two subdivisions. The District comprises the *tālukas* of CHĀCHRO, DIPLO, KHIPRO, MĪRPUR KHĀS, MITHI, NAGAR, JAMESĀBĀD, SANGHAR, and UMARKOT, together with the two newly formed *tālukas* of PITHORO and SINJHORO. District subdivisions and staff.

The chief judicial authority is vested in the Deputy-Commissioner, who exercises the jurisdiction of a District Judge. The Sessions Judge of Hyderābād acts as Sessions Judge for the District. Appeals lie from him to the Judicial Commissioner at Karāchi. Under him are Deputy-Collectors, who, in their judicial capacity, try civil cases up to Rs 2,000 in value; there are also 7 *mukhtiārkārs*, empowered to decide civil cases up to Rs. 200 in value in the Nāra subdivision and Rs. 1,000 in the Thar. Civil courts are situated at the head-quarters of *tālukas*. The crime most rife is cattle-lifting. The Criminal Tribes Act (XXVII of 1871) was extended to the Hurs, a semi-religious sect of desperadoes, who for several years terrorized all Sind, and were finally shot down or captured in 1896. Civil and criminal justice.

In the Mithi and Islāmkot tracts, the Tālpurs are said to have formerly exacted two-fifths of the produce of land; but no regular revenue system was introduced by the British till the years 1830 and 1835, when disturbances at once took place. In 1850 the Umarkot and Nāra divisions were leased to Soda *zamīndārs* on a light settlement; and at the end of 1854 the Commissioner of Sind, Mr. (the late Sir Bartle) Frere, introduced in the Thar a fixed assessment on a ten years' lease. Before that time the Government share was fixed annually after an inspection of the fields and an estimate of the crop. The District is now under the irrigational survey settlement, fixed Land revenue administration.

in almost all the *tālukas* for a period of ten years. The present land revenue rates per acre are: garden land, Rs. 2–11 (maximum Rs. 3, minimum Rs. 2–3); rice land, Rs. 2–10 (maximum Rs. 3, minimum Rs. 2–3); 'dry' land, Rs. 1–15 (maximum Rs. 2–6, minimum Rs. 1–6).

The collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	3,13	5,69	11,45	15,17
Total revenue . .	3,48	7,60	12,64	17,56

Municipalities and local boards.

There are three municipalities: UMARKOT, MITHI, and MĪRPUR KHĀS. Outside these, local affairs are managed by the District board and 8 *tāluka* boards. The total receipts and expenditure of these boards in 1903–4 were more than one lakh, of which Rs. 41,000 was spent on roads and buildings.

Police and jails.

The Deputy-Commissioner is *ex-officio* Superintendent of police, and has an Assistant Superintendent and 2 inspectors [1]. There are 24 police stations. The total number of police is 606, of whom 14 are chief constables, 129 head constables, and 463 constables. The entire force is mounted. In addition to the subsidiary jail at Umarkot, there are 10 other subsidiary jails, in which 182 prisoners can be accommodated. The daily average number of prisoners in 1904 was 42, of whom one was a female.

Education.

Compared with other Districts of the Presidency, Thar and Pārkar stands last in education. The Diplo and Chāchro *tālukas* are the most backward. The literate population in 1901 numbered only 3,639 persons (or 10 per 1,000), including 37 females. In 1880–1 there were 11 schools with an attendance of 799 pupils; in 1890–1 the number of pupils rose to 2,650. In 1903–4 there were 164 schools with 4,733 pupils, of which 63 were maintained by local boards, 5 by municipalities, 27 were aided and 69 were private schools. In the Umarkot technical school, instruction is given in carpentry and smith-work. At Sanchor, schools for boys and embroidery classes for girls have been started among the Hurs. The total expenditure on education in 1903–4 was Rs. 34,000, of which Rs. 87 was derived from fees.

Hospitals and dispensaries.

There are 7 dispensaries with accommodation for 50 in-patients. In 1904 the number of cases treated was 20,088,

[1] Since 1906 a police officer has been appointed to the office of District Superintendent.

of whom 190 were in-patients, and 665 operations were performed. The total expenditure was Rs. 9,683, of which Rs. 6,103 was met from Local and municipal funds.

The number of persons successfully vaccinated in 1903–4 was 8,501, representing a proportion of 21·8 per 1,000, which is below the average for the Presidency. Vaccination.

[A. W. Hughes, *Gazetteer of the Province of Sind* (1876).]

Nāra Valley.—Subdivision of Thar and Pārkar District, Sind, Bombay, composed of the UMARKOT, KHIPRO, SANGHAR, MĪRPUR KHĀS, JAMESĀBĀD, PITHORO, and SINJHORO *tālukas*.

Umarkot Tāluka.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 49′ and 25° 45′ N. and 69° 30′ and 70° 13′ E., with an area of 1,461 square miles. The population in 1901 was 49,118, compared with 43,128 in 1891. The density, 34 persons per square mile, slightly exceeds the District average. The *tāluka* contains one town, UMARKOT (population, 4,924), the head-quarters; and 110 villages. The chief crop is *bājra*. The land revenue and cesses in 1903–4 amounted to 1·6 lakhs. Half of the *tāluka* is in the Thar and depends on rain for its cultivation; the other half is irrigated by the Thar Wah Canal.

Khipro.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 25° 26′ and 26° 15′ N. and 69° 3′ and 70° 16′ E., with an area of 2,249 square miles. The population in 1901 was 54,681, compared with 47,199 in 1891. The density, 24 persons per square mile, is almost equal to the District average. The *tāluka* contains 125 villages, the head-quarters being at Khipro. The land revenue and cesses in 1903–4 amounted to nearly 2 lakhs. Excepting the desert portion, known as Rānāhu *tapa*, the *tāluka* is irrigated by the Mithrao Canal and the Dhoro Nāro.

Sanghar.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 25° 40′ and 26° 15′ N. and 68° 51′ and 69° 25′ E. In 1901 it had an area of 1,050 square miles, and the number of villages was 63. The head-quarters are at Sanghar. The present area is 830 square miles, the reduction being due to the creation of new *tālukas*. The population in 1901 was 40,341, compared with 41,265 in 1891. The density, 49 persons per square mile, is considerably above the District average. The land revenue and cesses in 1903–4 amounted to 1·3 lakhs. The *tāluka* is irrigated mainly by the Mithrao Canal, rice being the principal crop.

Mīrpur Khās Tāluka.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 25° 12′ and 25° 48′ N.

and 68° 54′ and 69° 16′ E., with an area of 457 square miles. The population rose from 27,866 in 1891 to 37,273 in 1901. The density, 82 persons per square mile, is the highest in the District. The *tāluka* contains one town, MĪRPUR KHĀS (population, 2,787), the head-quarters; and 135 villages. The land revenue and cesses in 1903-4 amounted to 3·3 lakhs. The *tāluka* is irrigated by canals, of which the chief is the Jāmrao. The Jodhpur-Bīkaner Railway traverses it.

Jamesābād (formerly Samaro).—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 50′ and 25° 28′ N. and 69° 14′ and 69° 35′ E., with an area of 505 square miles. The population in 1901 was 24,038, compared with 19,208 in 1891. The density, 48 persons per square mile, is considerably above the District average. The *tāluka* contains 184 villages, of which Jamesābād is the head-quarters. The land revenue and cesses in 1903-4 amounted to 3·7 lakhs. The *tāluka* is chiefly irrigated by the Jāmrao Canal. *Bājra*, *jambho*, and wheat are the principal crops.

Pithoro.—Recently formed *tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 25° and 25° 35′ N. and 69° 15′ and 69° 40′ E., with an area of 481 square miles. The population (1901) was about 37,713, and the *tāluka* contains 128 villages, Samaro being the head-quarters. The land revenue and cesses in 1903-4 amounted to more than 2 lakhs. The Jodhpūr-Bīkaner Railway traverses the *tāluka*, which is irrigated by the Mithrao, Jāmrao, and Hiral Canals. The chief crops are rice and cotton.

Sinjhoro.—Newly formed *tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 25° 45′ and 26° 20′ N. and 68° 40′ and 69° 10′ E., with an area of 479 square miles. The population (1901) is about 37,230, and the *tāluka* contains 131 villages. Jhol is at present the head-quarters of the *tāluka*, but Sinjhoro will shortly take its place. The land revenue and cesses amounted in 1903-4 to 2⅓ lakhs. The *tāluka* is irrigated by canals, notably the Jāmrao, and produces *bājra* and cotton.

Thar.—Subdivision of Thar and Pārkar District, Sind, Bombay, composed of the MITHI, DIPLO, CHĀCHRO, and NAGAR *tālukas*.

Mithi Tāluka.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 17′ and 24° 57′ N. and 69° 30′ and 70° 34′ E., with an area of 1,563 square miles. The population fell from 36,445 in 1891 to 26,154 in 1901. The density, 17 persons per square mile, is below the District

average. The *tāluka* contains one town, MITHI (population, 2,806), the head-quarters; and 46 villages. The land revenue and cesses in 1903–4 amounted to Rs. 26,000. Cultivation depends upon rainfall, and to a small extent upon well-irrigation, the principal crop being *bājra*. The *tāluka* is liable to famine.

Diplo.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 16′ and 24° 50′ N. and 69° 5′ and 70° 7′ E., with an area of 1,503 square miles. The population in 1901 was 16,886, compared with 23,917 in 1891. The *tāluka* contains 42 villages, and is the most thinly populated in the District, with a density of only 11 persons per square mile. The head-quarters are at Diplo. The land revenue and cesses in 1903–4 amounted to Rs. 20,000. The *tāluka* is a desert tract, intersected by frequent sandhills, and, excepting the Kaloi *tapa*, which is watered by the Nāra, depends for cultivation upon the rainfall. The principal crop is *bājra*.

Chāchro.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 44′ and 26° 46′ N. and 69° 48′ and 71° 8′ E., with an area of 2,795 square miles. The population in 1901 was 40,925, compared with 49,502 in 1891. The density, 15 persons per square mile, is slightly below the District average. The *tāluka* contains 40 villages, of which Chāchro is the head-quarters. The land revenue and cesses in 1903–4 amounted to Rs. 49,000. The *tāluka* is a sandy tract of ridge and plain, and depends entirely upon the rainfall for cultivation and pasture. It is subject to frequent droughts. *Bājra* is the principal crop.

Nagar Tāluka.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 14′ and 25° 2′ N. and 70° 31′ E., bordering on the Rann of Cutch, with an area of 1,618 square miles. The population fell from 41,178 in 1891 to 25,355 in 1901. The density, 16 persons per square mile, is below the District average. The *tāluka* contains 31 villages, of which NAGAR PĀRKAR is the head-quarters. The land revenue and cesses in 1903–4 amounted to Rs. 28,000. The *tāluka*, which grows chiefly *bājra*, depends for cultivation upon the rainfall and a few wells, and is therefore subject to drought.

Brāhmanābād (*Bumbra-ke-Thul*).—Ruined city in the Sinjhoro *tāluka* of Thar and Pārkar District, Sind, Bombay, situated in 25° 52′ N. and 68° 52′ E., about 11 miles south-east of Shāhdādpur in Hyderābād, and 21 miles from Hāla. It once stood on the old course of the Indus, and was strongly

fortified. Outlying suburbs connected it with the cities of Depur and Dalāri—the former the royal, the latter the official quarter, Brāhmanābād itself being the commercial centre. The ruins of its fortifications measure 4 miles in circumference. Excavations prove that the inhabitants had attained to great skill in the arts, for the sculptures, engraved gems, carved ivory, earthenware, and coloured glass found among the ruins show both advanced taste and workmanship; while the arrangement and regularity of the streets and the solid proportions of the buildings attest great architectural excellence. Legends say that the city was founded prior to the seventh century, and was destroyed by the gods in punishment for the iniquities of 'King Dolora.' History so far confirms this tradition as to make mention of an unjust ruler, by name Dolora Amrāni, in the eleventh century. That the destruction of the city was as sudden as it was complete is proved by the discovery of whole households overwhelmed together, men and women at their work, and cattle in their stalls. No marks of conflagration are discernible, nor—since household goods and valuables remain *in situ*—can the ruin of the city be referred to the invasion of an enemy or desertion by the inhabitants. The legend, therefore, is probably so far correct that Brāhmanābād was destroyed by natural agency—most probably by the earthquake which about the same time diverted the course of the Indus.

[*Journal of the Bombay Branch of the Royal Asiatic Society*, vol. v (1857), 'An Account of the Ancient and Ruined City of Brāhmanābād in Sind,' by A. F. Bellasis; *Annual Report of the Archaeological Survey of India* (1903–4), 'Brāhmanābād—Mansūra in Sind,' by H. Cousens.]

Mīrpur Khās Town.—Head-quarters of the *tāluka* of the same name in Thar and Pārkar District, Sind, Bombay, situated in 25° 30′ N. and 69° 3′ E., on the Luni-Hyderābād branch of the Jodhpur-Bīkaner Railway, on the Let Wah canal, and also on the high road from Hyderābād to Umarkot, 38 miles south-east of Hāla, and 41 miles east-north-east of Hyderābād via Tando Alāhyār (17 miles distant). Population (1901), 2,787. The local trade is in grain, cotton (said to be the finest in Sind), and piece-goods, valued at 3·88 lakhs. The annual value of the transit trade is estimated at 25·67 lakhs. Mīrpur is a comparatively modern town, having been built in 1806 by Mīr Alī Murād Tālpur, and has increased in importance since the opening of the Jāmrao Canal in 1900. A new suburb is now being built on approved lines by the

colonization officer of the Jāmrao Canal. It was the capital of Mīr Sher Muhammad Khān Tālpur, whose army was defeated in 1843 by Sir Charles Napier at Dabba (Dabo) near Hyderābād. The town was constituted a municipality in 1901, and had an income in 1903–4 of Rs. 13,000. It contains a dispensary and one primary school, attended by 84 pupils.

Mithi Town.—Head-quarters of the *tāluka* of the same name in Thar and Pārkar District, Sind, Bombay, situated in 24° 44′ N. and 69° 51′ E., about 60 miles south of Umarkot. Population (1901), 2,806. The trade, both local and transit, consists of grain, cotton, cattle, camels, *ghī*, dyes, hides, oil, piece-goods, sugar, tobacco, and wool. The town was constituted a municipality in 1860, and had an average income of about Rs. 4,000 during the decade ending 1901. In 1903–4 the income was Rs. 10,000. The municipality was abolished in 1905. The town contains two primary schools, one for boys and the other for girls, attended respectively by 143 and 93 pupils.

Nagar Pārkar.—Head-quarters of the Nagar *tāluka* in Thar and Pārkar District, Sind, Bombay, situated in 24° 21′ N. and 70° 47′ E., 120 miles south of Umarkot. Population (1901), 2,454. It is connected by good roads with Islāmkot, Mithi, Adigaon, Pitāpur, Birāni, and Bela in Cutch. The manufactures include weaving and dyeing of cloth; and there is a local trade in wool, grain, coco-nuts, piece-goods, hides, and metals, besides a transit trade in grain, camels, cattle, wool, and *ghī*. The village is believed to be of some antiquity; about a mile distant is Sardhāra, with a temple to Mahādeo, and a spring sacred among Hindus. In 1859 Nagar Pārkar was the scene of a rebellion, for the suppression of which a British force was dispatched from Hyderābād. The ring-leaders were transported for a term of years. Four miles north-west from Nagar Pārkar in Bhodisar are the remains of three ancient Jain structures, supposed to have been built in 1375 and 1449. The town contains a dispensary and two vernacular schools, attended by 152 pupils, of which one with 56 pupils is a girls' school.

Rānāhu.—Town in the Khipro *tāluka* of Thar and Pārkar District, Sind, situated in 20° 55′ N. and 69° 52′ E. Population (1901), 5,187. It is a place of little importance, with no trade, and, in consequence of successive famines, a decreasing population.

Umarkot Town.—Head-quarters of Thar and Pārkar District, Sind, Bombay, situated in 25° 21′ N. and 69° 46′ E.

It stands on the confines of the sandhills forming the eastern desert; and a canal, known as the Umarkot branch, leading out from the Nāra, now reaches the town, tailing off into a large tank. Population (1901), 4,924. Umarkot has direct communication with Chor station on the North-Western Railway by a good road, 7 miles long. The town contains a fort, about 500 feet square, the usual garrison of which, when in the possession of the Tālpur Mīrs, was 400 men. It is reported to be nearly 700 years old, and forms a stately centre to the town. At present, the principal Government buildings are situated within this stronghold. The chief employments of the inhabitants are agriculture and cattle-breeding. The Hindus devote their attention also to trade, several of the Umarkot merchants being wealthy men. There is a local trade in grain, *ghī*, camels, cattle, and tobacco, while the transit trade is concerned with cotton, metals, dyes, dried fruits, *ghī*, grain, oil, piece-goods, wool, and tobacco. The manufactures are confined to the making of coarse cloths. The town of Umarkot is said to have been founded by one Umar, a chief of the Sūmra tribe, but at what date is not known. Its historical importance is due to its position on the main route from Hindustān to Sind. Here, in October, 1542, was born Akbar, the son of Humāyūn, the exiled Mughal emperor, then on his flight to Afghānistān. The presumed spot of Akbar's birth is marked by a stone slab, with an inscription. It was through this town that Akbar, when emperor, marched in 1591 to conquer Sind. In 1813 Umarkot was captured by the Tālpur Mīrs from the Rājā of Jodhpur, in whose possession it had been for some time; and after their downfall in 1843 it passed to the British. Rāna Ratān Singh, one of the most troublesome of the Soda chiefs, was executed here in the early days of British rule. The temple of Mahādeo, 3 miles north-east of Umarkot, is visited by large numbers of Hindus. The municipality, established in 1860, had an average income during the decade ending 1901 of Rs. 14,000. In 1903-4 the income was also Rs. 14,000. The town contains a dispensary and two primary schools, one for boys with 180 pupils and the other for girls with 102. To the former is attached a technical school which teaches carpentry and smith's work.

Boundaries, configuration, and hill and river systems.

Upper Sind Frontier District.—District forming the northernmost portion of the province of Sind, Bombay, and lying between 27° 56′ and 28° 27′ N. and 68° and 69° 44′ E., with an area of 2,621 square miles. It is bounded on the

north and west by the Dera Ghāzi Khān District of the Punjab and by Baluchistān; on the south by Sukkur District; and on the east by the river Indus.

The District consists of a narrow strip of level plain covered in parts with dense jungle, which, prior to the construction of the Kashmor embankment in 1879-80, was exposed to annual inundations. The embankment now keeps out the flood-water, and cultivation is general. The greatest length from east to west is 114 miles, and the maximum breadth from north to south 20 miles. The land itself lies from 170 to 273 feet above sea-level, being highest on its eastern side near the river Indus, whence it slopes downwards to the west. The south-east extremity of the District consists of high mountains, part of the Kīrthar Range, the highest peak being Miāngūn (5,100 feet). These hills and the adjacent flood-swept plain are sparsely inhabited. The northern border of the District is skirted by the Bugti hills, part of the Sulaimān mountains. Geologically, the District consists of alluvial deposits and desert.

Flora and fauna. The principal trees met with include the tamarisk or *lai*, *bahān* (*Populus euphratica*), *babūl*, wild caper-tree or *kirir*, *kandi*, *nīm*, *sirih* (*Acacia Lebbek*), black-wood or *tāli*, jujube or *ber*, and *jāl*. The wild animals comprise hogs, which are very numerous, gazelles, hog-deer (*phārā*), hyenas, wolves, jackals, and foxes. Wild sheep (*gad*) and sometimes ibex are found in the mountains, and a leopard was recently shot in the plains near Kashmor. Tigers are now quite extinct. The imperial grouse (*chural*) and the raven, elsewhere rare in Sind, are found in this District.

Climate, temperature, and rainfall. The climate is remarkable for its intense heat, the greatest in India, its variations in temperature, and the smallness of the rainfall. The hot season extends from April to October. For the remainder of the year the weather is cold and agreeable. In November and March the temperature rises considerably in the daytime, but in the winter nights cold is severe and frost is frequent. Cool nights are experienced in April and May, after which the full force of the heat is felt, the nights being oppressive and the humidity generally over 70 per cent. During the five years 1900-4, the maximum temperature recorded was 126°, the minimum on the same day being 88°. Shade temperatures over 120° are frequently recorded, and sometimes the thermometer does not fall below 90° for several successive days. After August the nights become cooler, the north-west wind sets in, and by the middle

of October the temperature falls considerably. The annual rainfall averages about 3 inches.

History. The history of the Sind Frontier is bound up with that of the border tribes and the measures taken for converting them from their predatory habits to the peaceful pursuits of cultivators and traders. No better account has been given of this work than that from the pen of General Jacob, who, as Commandant and Political Superintendent of the Frontier, had so large a share in its successful completion, and whose name remains associated with Jacobābād, the capital of the District, as an enduring memorial. The border tribes are the Mazāris, Burdis or Buledhis, Khosas, Jamālis, Jatois, Dombkis, Jakrānis, and Bugtis. The Mazāris inhabit the country on the right bank of the Indus, partly within the limits of Sind and partly in the Punjab. They are the most expert cattle-stealers in the border country. The Burdis reside on the west bank of the Indus, between the Mazāris and the Begāri Canal. They first came into contact with the British in 1838, in consequence of which the latter in 1839 received the fortress of BUKKUR from Mīr Rustam of Khairpur, to whom the Burdis were subject. They then bore an evil reputation for robbery and murder. In 1843 they became subject to Mīr Alī Murād, on the deposition of Mīr Rustam, and assisted the former in his hill campaign with Sir Charles Napier in 1844. In 1847 the depredations of the Burdis, assisted by the Khosas, Dombkis, and Jakrānis, engaged the attention of the Sind Horse under Major Jacob, who broke up the confederacy, disarmed the tribes, cut roads through the jungles which had given cover to them, and reduced the country to order. The tract inhabited by the Burdis, known as Burdika, became British territory in 1852, when the lands of Mīr Rustam, as first conferred on Mīr Alī Murād, were resumed. The Khosas are found throughout Sind, and formerly extended their plundering raids into Gujarāt. Most formidable among the Baloch tribes, however, were the Dombkis and Jakrānis. Up to 1845 they resided in Eastern Kachhi, where they held a large tract of country. After the campaign of Sir Charles Napier in 1844–5, the defeated Dombkis and Jakrānis were settled at Jānidero and its vicinity, and a Commissioner was appointed to superintend them. Instead of settling down to cultivate the lands then allotted to them, these turbulent tribes, assisted by the Bugtis, made repeated plundering excursions from Sind into the neighbouring countries. The border country was left uncul-

tivated, canals remained uncleared, and all peaceable people left the neighbourhood. In 1847 the Sind Horse were ordered up from Hyderābād to pacify the country, Major Jacob being placed in command of the Frontier. A persistent pursuit of the tribesmen followed, parties of plunderers being tracked and hunted down in all directions, until the main body of the marauders was surrounded and secured. Major Jacob then set the Jakrānis to clear out the Nūr Wah Canal, and settled the Baloch tribesmen on the adjacent territory. They rapidly reconciled themselves to peaceful pursuits, and have since continued contentedly to cultivate their holdings.

The people.

The District contains one town, JACOBĀBĀD, and 390 villages. According to the last four enumerations, the population has more than doubled in thirty years. In 1872 it was 115,050; in 1881, 145,810; in 1891, 174,548; and the Census of 1901 returned a total of 232,045, or 89 persons per square mile. The increase is due to immigration from Baluchistān and the Punjab, to fresh lands having been brought under cultivation, and to changes in the area of the District amounting to an addition of about 500 square miles. The population is distributed as in the following table:—

Tāluka.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Jacobābād	460	1	85	64,972	141	+ 34	1,841
Thul	496	...	96	47,786	96	+ 49	1,098
Kandhkot	543	...	82	48,723	90	+ 60	640
Kashmor	500	...	65	38,179	77	+ 7	509
Shāhdādpur	622	...	62	32,385	52	+ 18	737
District total	2,621	1	390	232,045	89	+ 33	4,825

The chief language is Sindī, which is spoken by 165,110 persons, or 71 per cent. of the total. Baluchī and Siraikī are also spoken in all parts of the District. Musalmāns form 90 per cent. of the total population and Hindus 9 per cent.

Castes and occupations.

The Baloch (72,500), who form the predominant class of the Muhammadan population, are divided into the following main tribes: the Burdis (22,000) living in the neighbourhood of Kashmor; the Khosas (9,000) distributed throughout the District; the Dombkis (7,000) near Jacobābād and Kumbri; the Chandias (6,000), the Lighāris (5,000), and the Rind (8,000) in the west. There are numerous Sindī tribes, chief

of which are the Sammās (47,500) and Sūmras (9,000). Minor divisions are Chachars, Mahārs, Panhars, &c. Jats, including Lisharis, Sinjrānis, Waswāns, Bābars, &c., number 9,000; they live in encampments of mat tents and are engaged in tending and rearing camels. There are 9,000 Brāhuis. Among Hindus the only caste of importance is the Lohāna (14,000), which provides clerks, merchants, shopkeepers, and a few agriculturists. During the cold season there is a large temporary immigration of Afghāns, chiefly labourers, but including many merchants and horse-dealers. The District is mainly agricultural, 74 per cent. of the population being supported by this means. The industrial population forms 18 per cent.

Of 62 Christians in 1901 only 2 were natives, belonging to the Roman Catholic denomination. There is no mission at work in the District.

General agricultural conditions.

The general nature of the soil is an alluvial deposit brought down by the Indus. There is a certain amount of sand, and a good deal of alkali land known as *kalar*. The latter has increased considerably since the Kashmor embankment shut off the river-floods. It can, however, be kept down by heavy watering, and is now frequently reclaimed in this way, good millet and rice being grown on it. In the high lands alkali is very common. The torrents from the northern and western hills bring down another kind of alluvial soil, hard, thirsty, and reddish clay, which is fertile if heavily watered.

The different modes of cultivation are known under the names of *mok*, where the land is lower than the surface of the water by which it is irrigated; *charkhi*, where the land is watered by a wheel from a canal or well; *bosi*, where land is flooded from canals during the annual inundation; and *sailābi*, or land overflowed by the river during the annual inundation. The chief *kharīf* crops are *jowār*, *bājra*, sesamum, and *mūng* or black gram. The *rabi* crops are wheat, gram, *sarihu* or colza, *jāmbho* or white mustard, barley, and vetches. Melons and gourds are planted before the *kharīf*. Cotton is sown in March and picked in the late autumn. It is cultivated in land which has been flooded, ploughed, and rolled in autumn, and derives its moisture from percolation or from canals.

Besides the ordinary alienations, large tracts of land in the District have been granted rent free to Baloch chiefs and their tribesmen—some in perpetuity, others for life, but all conditional on good behaviour and loyalty, and subject to payment

of *hakabo* (water-rate) or any other local cess legally imposed. The area thus granted amounts to 74 square miles.

Chief agricultural statistics and principal crops.

The chief statistics of cultivation in 1903-4 are shown below, in square miles:—

Tāluka.	Total.	Cultivated.	Irrigated.	Waste.	Forests.
Jacobābād .	460	318	192	53	8
Thul . .	497	372	187	62	...
Kandhkot .	548	328	180	79	7
Kashmor . .	508	169	96	177	37
Shāhdādpur .	622	198	107	184	...
Total	2,635*	1,385	762	555	52

* This figure differs from the area shown in the paragraph on population above (p. 317), being based on more recent information.

The principal crops are rice (78 square miles), *jowār* (206), *bājra* (136), wheat (71), gram (82), *lang* (57), sesamum (94), and rape-seed (39 square miles). The sandy lands near Jacobābād produce melons of very fair quality. Apart from a considerable increase of cultivation due to extension of canals, no noteworthy agricultural improvement has taken place during the last twenty years. Large sums have been advanced to the cultivators under the Agriculturists' Loans Act for canal clearance and for the purchase of seed, amounting, during the decade ending 1903-4, to more than 2½ lakhs. Of this sum, Rs. 45,000 was advanced in 1898-9, Rs. 56,000 in 1901-2, and Rs. 58,000 in 1903-4.

Domestic animals.

The cattle used for draught are generally of fair quality; but the Kachhi breed, from the Nāri river, near Bhāg, is especially famous throughout both Sind and the Punjab. Much attention is bestowed by the Baloch on the breeding of mares. The sheep are of the *dumba* or fat-tailed kind, yielding excellent mutton.

Irrigation.

The total irrigated area in 1903-4 was 762 square miles, of which 705 square miles were irrigated from Government canals. The following are the principal canals maintained by Government, which form an important source of the District revenue. The Begāri Canal takes off from the Indus in the extreme south-eastern corner, and flows along the south of the District to Khaira Garhi in the extreme west; total length, including branches, 158 miles; width at mouth, 57 feet; navigable by boats for 58 miles. The cost of this canal during the four years ending 1903-4 averaged Rs. 49,455, while the average annual revenue during the same period amounted to nearly 4 lakhs; the revenue in 1903-4 was half of the District total.

The area in the District irrigated by the canal in 1903–4 was 287 square miles. The Begāri is continued by the Sir Canal, which brings in an annual revenue of Rs. 16,000, realized as a water rate from lands irrigated by it and lying in Kalāt territory. The Nūr Wah is a branch of the Begāri, taking off from that canal 40 miles from its head, and running northwards to Jacobābād, a distance of 19 miles, of which 10 miles are navigable. The Mirza Wah is another branch of the Begāri, 9½ miles in length, watering the *tappas* of Mīrpur, Balochābād, Mīral, and Mubārakpur. The Budhu Wah is a short branch of the Nūr Wah, 4 miles in length. The Desert Canal runs 75 miles west of Kashmor, irrigating about 207 square miles. The Unar Wah, which has its source in the Wadhu *dandh* (weir) of the Indus, runs for 36 miles through the District, irrigating 130 square miles. These canals have numerous smaller branches. The other important works supplying irrigation are the Kashmor embankment (6 square miles), the Sukkur Canal (61), and the Ghār Canal (33). The area irrigated from wells is only half a square mile, and from all other sources 61 square miles.

Forests.

Forests in charge of the Forest department cover about 52 square miles. Some of them contain *bahān* and *kandi* of a fair size, but they are mostly tamarisk scrub. The canal banks are commonly lined with *babūl*, but trees are commonest on the road-side. In the last three years many thousands of trees have been planted by the local boards.

Arts and manufactures.

The manufacture of salt, which was formerly conducted on a large scale, is now prohibited, and local wants are supplied from the Moāch works near Karāchi. The lacquered woodwork of Kashmor is worthy of mention. Embroidered and plain shoes are made at Mīrpur, Ghauspur, and other places in the District to the number of from twenty to twenty-five thousand pairs a year. Woollen carpets, saddle-bags, nose-bags, ropes, grain-bags, &c., are woven by Baloch and Jat women. Mats, brooms, sieves, baskets, fans, and ropes are similarly made from the leaves of the *pish* (dwarf-palm). Cotton cloth of an inferior description is also woven. Dyeing and calico printing are carried on to a small extent.

Commerce and trade.

The internal trade and commerce of the District is principally in *jowār*, *bājra*, and *til*, the greater part of which is sent to the sea-board. The transit trade from Central Asia into Sind is also considerable. This trade is conducted by means of the railway and on camels, ponies, and asses, chiefly by the great road which runs through the entire breadth of the Dis-

trict from Jacobābād to Kashmor, and thence to Mithankot. The merchandise brought from Central Asia consists of wool, woollen apparel, *manjīt* or madder, fruits, carpets, and horses; of the last some are purchased for the use of the cavalry at Jacobābād, and the others generally proceed to Karāchi by the Kalāt road. The District share of the trans-frontier trade has decreased since through transit was established by the construction of the Quetta railway. The chief articles of export to Baluchistān and Afghānistān are European and Indian piece-goods, leather, brass and copper, sugar, and tea.

Communications. Railways and roads.

The Quetta branch of the North-Western Railway runs through the centre of the District. There are upwards of 1,150 miles of roads of all descriptions, mostly inferior, owing to the nature of the soil and the difficulty of obtaining material for repairs. Of these, 32½ miles are maintained by the Public Works department and 1,121 miles by the local authorities. The only metalled roads are in Jacobābād town. Elsewhere, the roads are strewn with straw or grass. The chief lines of road are those from Jacobābād to Shikārpur, to Dīl Murād, to Tower Begāri, to Nasīrābād, to Rojhan, to Mubārakpur, to Mīrpur, to Kandhkot, to Ghauspur, to Garhi Khairo, to Gora Nāri, to Sanri, and to Toj; from Dīl Murād to Garhi Hasan, to Tangwāni, to Kandhkot, to Kumbri, and to Kashmor; from Tower Begāri to Chausūl and Rato-Dero; from Nasīrābād to Shāhpur; from Rojhan to Muhammadābād and Khaira Garhi; and from Chausūl to Shikārpur. Avenues of trees are maintained on 72 miles of road.

District subdivisions and staff.

The District is in charge of a Deputy-Commissioner, who is also District and Sessions Judge and is assisted by a Deputy-Collector. It is divided into 5 *tālukas*—Jacobābād, Thul, Kashmor, Shāhdādpur, and Kandhkot.

Civil and criminal justice.

Civil justice is administered by a Subordinate Judge, sitting at Jacobābād, who is subordinate to the District Judge of Sukkur-Lārkāna. The chief criminal jurisdiction rests with the Deputy-Commissioner. The staff includes a Cantonment Magistrate and a resident magistrate at Jacobābād. The crimes most prevalent are cattle-lifting, murder, and grievous hurt. Dacoities are of rare occurrence.

Land revenue administration

The irrigation settlement is in force in the whole of the District. Almost all irrigable land that has been reclaimed from jungle after the cessation of the floods is occupied and is cultivated in rotation. A considerable area of land, amounting to 555 square miles, is still unoccupied and available for cultivation. The revised settlement, completed in 1892–3, in-

creased the demand of the previous assessments (5·4 lakhs) by 50 per cent., and there has been a further increase of 20 per cent. in the last decade. The last settlement was introduced throughout the District between 1894 and 1897, and the revision settlement in 1906–7. In the unsettled portion of the District the settlement has been introduced since 1905–6, and shows an increase of 10 per cent. over the previous assessment. The average rates per acre are: garden land, Rs. 2–14 (maximum Rs. 3–8, minimum Rs. 2–4); rice land, Rs. 3–11 (maximum Rs. 4–8, minimum Rs. 2–14); 'dry' land, Rs. 2–6 (maximum Rs. 2–12, minimum Rs. 2).

Collections on account of land revenue and total revenue have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	3,74	6,41	11,75	10,47
Total revenue . .	4,88	8,85	16,59	14,14

Municipalities and local boards.

There is only one municipality, JACOBĀBĀD. Local affairs elsewhere are administered by a District board at Jacobābād and five *tāluka* boards, with a total income of Rs. 77,000 in 1903–4. Their principal source of income is the cess of one anna in the rupee of land revenue. More than Rs. 53,000 was spent in the same year upon buildings and communications.

Police and jails.

The police force, formerly in charge of the Deputy-Commissioner, is now controlled by an Assistant Superintendent. There are 7 police stations in the District. The total number of police is 362, consisting of one inspector, 6 sub-inspectors, 63 head constables, and 292 constables. There are 5 subsidiary jails and 7 lock-ups in the District, with accommodation for 132 prisoners. The daily average number of prisoners in 1904 was 31.

Education.

Among the Districts of the Presidency, this stands last but one in regard to education. In 1901, 4,825 persons (2·1 per cent. of the total) were able to read and write, including 4,796 (3·7 per cent.) males and 29 females. In 1881 there were 9 schools attended by 371 pupils. The number of pupils rose to 2,836 in 1901. In 1903–4 there were 138 schools with 3,933 pupils. Of these, 96 are public schools, attended by 3,243 boys and 287 girls. Of the institutions classed as public, 50 are maintained by the local boards, 4 by municipalities, 41 are aided, and one is unaided. The population consists largely of wild tribes recently reclaimed from maraud-

ing habits, who are naturally at present an unpromising field for education. The expenditure upon education in 1903-4 amounted to Rs. 33,000, and was devoted entirely to primary instruction.

Hospitals and dispensaries. There are four dispensaries and one other medical institution in the District, with accommodation for 62 patients. In these institutions 17,678 cases were treated in 1904. The cases included 333 in-patients, and 1,163 operations were performed during the year. The expenditure was Rs. 10,241, of which nearly Rs. 4,700 was met from Local and municipal funds.

Vaccination. The number of persons successfully vaccinated in 1903-4 was 6,762, representing a proportion of 29 per 1,000, which exceeds the Presidency average.

[A. W. Hughes, *Gazetteer of the Province of Sind* (1876).]

acobābād Tāluka.—*Tāluka* of the Upper Sind Frontier District, Sind, Bombay, lying between 27° 56′ and 28° 26′ N. and 67° 59′ and 69° 37′ E., with an area of 460 square miles. The population in 1901 was 64,972, compared with 48,330 in 1891. This is the most thickly populated *tāluka* in the District, the density being 141 persons per square mile. It contains one town, JACOBĀBĀD (population, 10,787), head-quarters of the District and *tāluka*; and 85 villages. The land revenue and cesses in 1903-4 amounted to nearly 3·5 lakhs. The *tāluka* is irrigated by the Begāri Canal and its branches, and also to a slight extent by the Desert Canal.

Thul.—*Tāluka* of the Upper Sind Frontier District, Sind, Bombay, lying in 28° 5′ and 28° 26′ N. and 68° 32′ and 68° 58′ E., with an area of 496 square miles. The population in 1901 was 47,786, compared with 32,706 in 1891. The density, 96 persons per square mile, slightly exceeds the District average. The *tāluka* contains 96 villages, of which Thul is the head-quarters. The land revenue and cesses in 1903-4 amounted to 2½ lakhs. The *tāluka* depends for irrigation upon the Begāri, Unhar Wah, and Desert Canals.

Kandhkot.—*Tāluka* of the Upper Sind Frontier District, Sind, Bombay, lying between 27° 59′ and 28° 27′ N. and 68° 57′ and 69° 22′ E., with an area of 543 square miles. The population in 1901 was 48,723, compared with 30,369 in 1891. The density, 90 persons per square mile, approximates to the District average. The *tāluka* contains 82 villages, of which Kandhkot is the head-quarters. The land revenue and cesses in 1903-4 amounted to nearly 1·9 lakhs. The *tāluka* depends for irrigation upon the Begāri, Unhar Wah, and Desert Canals, the canals from the Kashmor Band, and river floods.

Kashmor.—*Tāluka* of the Upper Sind Frontier District, Sind, Bombay, lying between 28° 4′ and 28° 29′ N. and 69° 15′ and 69° 47′ E. In 1901 the area was 500 square miles. The population in 1901 was 38,179, compared with 35,763 in 1891. The density, 77 persons per square mile, is much below the District average. The *tāluka* contained 65 villages, of which Kashmor is the head-quarters. The land revenue and cesses amounted in 1903–4 to 1·2 lakhs. Owing to the vagaries of the Indus, the present area of the *tāluka* is 508 square miles, of which about 37 square miles are covered by forests. A large area of land is still unoccupied and available for cultivation. Irrigation depends upon floods and upon the Desert and Dingro Wah Canals and the canals from the Kashmor Band.

Shāhdādpur.—*Tāluka* of the Upper Sind Frontier District, Sind, Bombay, lying between 27° 40′ and 28° 3′ N. and 67° 22′ and 68° 11′ E., with an area of 622 square miles. The population in 1901 was 32,385, compared with 27,380 in 1891. It is the most thinly populated *tāluka* in the District, with a density of only 52 persons per square mile. It contains 62 villages, of which Shāhdādpur is the head-quarters. The land revenue and cesses in 1903–4 amounted to 1·8 lakhs. Portions of the Begāri, Ghār, and Sukkur canals irrigate the *tāluka*, and a certain amount of cultivation is usually carried out in the neighbourhood of hill torrents.

Jacobābād Town.—Head-quarters of the Upper Sind Frontier District, Sind, Bombay, situated in 28° 17′ N. and 68° 29′ E., on the Sind-Pishīn branch of the North-Western Railway. Population (1901), 10,787, of whom 3,107 were in the cantonment. Jacobābād was planned and laid out, in 1847, by General John Jacob, for many years commandant of the Sind Horse, on the site of the village of Khāngarh. The town is oblong in shape, 2 miles long by one broad, and is watered by the Rāj Wah and Budhu Wah irrigation canals. Jacobābād is now the head-quarters of a regiment of native cavalry, as well as of the civil administration. In addition to the cantonment, civil and judicial courts, dispensary, and jail, it also contains a Residency in which General Jacob resided, the tomb of General Jacob, who died here in 1858, the Victoria clock-tower built in 1887, and lines for the accommodation of trade caravans (*kāfilas*) from Central Asia. Here are also a cloth market and vegetable market, built by the municipality. The railway carries a considerable trade in grain, *ghī*, and leather. The town was constituted a munici-

pality in 1875. The income during the decade ending 1901 averaged Rs. 57,300. In 1903-4 the income was Rs. 70,000, composed chiefly of octroi (Rs. 32,000) and market fees (Rs. 17,000); while the expenditure was Rs. 76,000, including Rs. 22,000 spent on education, Rs. 16,000 on administrative charges, and Rs. 14,000 on roads. The income and expenditure of the cantonment fund in the same year were respectively Rs. 19,000 and Rs. 13,000.

NATIVE STATES

Boundaries, configuration, and hill and river systems.

Cutch (*Kachchh*, or 'The sea-coast land').—Native State under the political superintendence of the Government of Bombay, bounded on the north and north-west by the province of Sind, on the east by Native States under the Pālanpur Agency, on the south by the peninsula of Kāthiāwār and the Gulf of Cutch, and on the south-west by the Indian Ocean. Its limits, exclusive of a portion of the great salt marsh termed the RANN, extend from 22° 47′ to 24° N. and from 68° 25′ to 71° 11′ E., comprising a belt of land 160 miles from east to west and about 35 to 70 miles from north to south. The area of the State (exclusive of the Rann) is 7,616 square miles, and it contains 8 towns and 937 villages. The capital is BHŪJ, where the chief or Mahārao resides. From its isolated position, the special character of its people, their peculiar dialect, and their strong feeling of personal loyalty to their ruler, the peninsula of Cutch has more of the elements of a distinct nationality than any other of the dependencies of Bombay.

The whole territory of Cutch is almost entirely cut off from the continent of India—north by the Great Rann, east by the Little Rann, south by the Gulf of Cutch, and west by the Arabian Sea. Though on the whole treeless, barren, and rocky, the aspect of the country is varied by ranges of hills and isolated peaks, by rugged and deeply cut river-beds, and by well-tilled valleys and tracts of rich pasture land. On the south, behind a high bank of sand that lines the sea-coast, lies a low, fertile, and well-cultivated plain from 20 to 30 miles broad. Beyond this plain, the country is broken by three hill ranges, those of Cutch proper, of Vāgad in the east, and the Rann islands in the north. The hills of Cutch proper spread widely in the west, but narrow towards the east, and contain one noticeable peak, Dhinodhar, about 1,000 feet high, reputed to have been once a volcano. Two other peaks, Jhura and Vārār, rise to nearly 900 feet. In the Vāgad hills the elevation is inconsiderable. The hilly islands of the Rann contain their highest point in the island of Pachham; the others, Chorad, Khadir, and Bela, not exceeding 617 feet. South-west of

Pachham island is an extensive low-lying tract known as the Banni, running almost parallel to the coast of Cutch for 65 miles. It is apt to be covered in times of high flood, and probably owes its origin to a bar of sand from the rivers which flow north. It is inhabited only by herdsmen, who live in beehive-shaped huts, use no cots, and light no lamps at night.

There are no permanent rivers in Cutch, but during the rainy season (July to October) many streams of considerable size flow from the central ranges of hills northwards to the Rann and southwards to the Gulf of Cutch. For the rest of the year the courses of these streams are marked by a succession of detached pools. Owing to the porous nature of the upper soil, storage of water in ponds and reservoirs is difficult; but brackish water is readily found in rock at no great depth from the surface, and wells of this kind are fairly numerous.

Of reservoirs Cutch possesses the Saror (meaning 'lake') in the east of the Charwar range, a round valley about 2½ miles broad, with a dam thrown across its narrow western outlet. The neighbourhood of Sindhdi in the west of the great Rann of Cutch has from the time of Alexander the Great (325 B.C.) been a fresh- or salt-water lake, a muddy hollow or a salt marsh, according as the Indus waters have succeeded or failed in reaching it.

From a geological point of view Cutch is one of the most complex and most interesting regions in India. A considerable part of the country, including the famous Rann, is covered by recent deposits. Some of these are alluvial, others in the Rann area may be partly alluvial and partly fluvio-marine, while others again, such as the sand-dunes and the curious calcareous 'sub-recent concrete,' are accumulations of wind-borne material. The sub-recent concrete is met with at all heights on the hill-slopes, while the sand-dunes and the recent deposits occupy only the lowest parts. The hills, and generally all the higher ground, contain an extremely varied succession of strata, ranging in age from Middle Jurassic (Bathonian) to upper miocene or lower pliocene. There is an almost uninterrupted sequence, covering the period corresponding to that included in Europe between the age of the great oolite and that of the lower greensand. The widespread uniformity which almost everywhere in Europe divides the Jurassic and Cretaceous is here filled up by a continuous series of sediments. The whole series consists largely of sandstones, many of which are unfossiliferous, while others contain only plant remains. Special difficulties are met with in attempting to correlate Geology.

strata by means of vegetable remains; but fossiliferous marine intercalations recur at frequent intervals amid the unfossiliferous or plant-bearing beds of Cutch, and they readily give a clue to the age of every part of the series. This easy correlation of the Cutch beds is of great importance from a scientific point of view. The fossil plants contained in some of the upper beds of the series are identical with the fossils of the Upper Gondwāna; and as, on account of the difficulty of correlating beds by means of plant remains, the age of the Gondwāna series was for a long time a disputed question, the discovery of marine beds, associated with their representatives in Cutch, became the means of fixing the geological date of their upper limit. The Upper Gondwānas of Cutch are known as the Umia beds, from the name of a village situated about 50 miles north-west of Bhūj. They correspond in age approximately with the Weald.

Earthquakes.

The peculiar character of the great salt wastes, and the eruptions of basalt and fire-rent cliffs along the base of the hills, mark the early force of volcanic action in Cutch. Volcanoes are no longer at work, but frequent shocks of earthquakes show that this tract is still the centre of strong subterranean energy. On four occasions during the last century, namely, 1819, 1844, 1845, and 1864, earthquake waves have crossed Cutch. The most severe were the shocks of 1819, when 7,000 houses at Bhūj, including the Rao's palace, were destroyed, and 1,150 people buried in the ruins. Every fortified town in the State was injured, and, in the west, the fort of Terā, considered the strongest in Cutch, was levelled with the ground. One effect of this convulsion was the fall, at several parts of its surface, of the bed of the Rann. Sinking is reported to have taken place in the east, the north, and the west. In the west, the change of level was most marked; for about 16 miles on either side of Sindhdi, a fortified custom-house on the left bank of the Kori river, the land would seem to have suddenly sunk from 8 to 12 feet, and the place has since been occupied by an inland lake or lagoon. North of Sindhdi, after the earthquake was over, a bank about 50 miles long and from 10 to 18 feet high stood out from the plains which had before stretched as level as the sea. On account of its sudden appearance across the old bed of the Indus, the natives gave to this bank the name of Allah Band, or 'God's embankment.' Early observers speak of it as an upheaval of the surface. But from the north side there is little sign of any rise in the land; and a few years after its formation (1826), the

flood-waters of the Indus, keeping their former course, forced their way through the dam. These two considerations would seem to show that the apparent height of the bank, as seen from the south, is to some extent due to the fall in the level of the land in that direction.

Flora and fauna.

Cutch is a land of few trees. The *nīm*, *pīpal*, and *babūl* are occasionally found near villages. The tamarind and the banyan are more rare, the mango requires care, and even on the coast the coco-nut is difficult to rear. Of large game, leopards and wild hog are to be found. Of smaller animals, the hare occurs in large numbers. The wild ass (*Equus hemionus*) frequents the wastes of the Rann.

Climate, temperature, and rainfall.

Lying along the parallel line of the tropic of Cancer, Cutch is almost beyond the rain-bringing influence of the south-west monsoon. The annual rainfall at Bhūj for the ten years ending 1903 averaged only 12·6 inches. During this period the greatest amount registered in any one year was 26·5 inches in 1895, and the least 1·4 in 1900. Along the sea-coast, throughout the year, the climate is agreeable; and over the whole tract for nearly nine months it is cool and healthy. But in April and May burning heat and dust-storms prevail, and, again, during October and part of November the heat becomes excessive. In 1903 the temperature attained a maximum of 109° in May, and fell to a minimum of 46° in January.

History.

The earliest historical notices of Cutch are in the Greek writers. The waters of the Rann were known to Alexander (325 B.C.). About 150 years later Cutch was part of Menander's kingdom, and shortly afterwards passed into the hands of the Sakas. To them succeeded the Parthians. Between A.D. 140 and 390 the Kshatrapas of Surāshtra ruled in Cutch. It was included for a time in the Gupta kingdom of Magadha and was ruled later by the Vallabhi kings. In the seventh century Cutch formed part of the province of Sind. Hiuen Tsiang refers to it as K'ie-ch'a. Invasions of Chārans, Kāthīs, and Chāvadas followed. In the ninth century the Arabs settled on the coast. In 1023 Bhīma Deo I of Anhilvāda fled before Mahmūd of Ghazni to Kandhkot; and at the close of that century the peninsula was overrun by Singhar, the fourth Sūmra ruler of Sind.

The modern history of Cutch may be said to date from its conquest by the Sind tribe of Sammā Rājputs in the fourteenth century. The Sammās fled to Cutch to escape the oppression of the Sūmras. The Chāvada Rājputs, who then ruled over Cutch, granted the Sammās a tract of land; but in time the

latter subverted the rule of the Chāvadas, and reigned in their stead (1320). The section of the Sammās forming the ruling family in Cutch were known as the Jādejas, or 'children of Jāda.' When the rest of the Sammā tribe in Lower Sind embraced the orthodox Muhammadan faith, the Jādejas adopted as their religion a mixture of Hinduism and Muhammadanism. This fact has avowedly influenced their history. Isolated from the rest of their tribesmen and unable to obtain suitable husbands for their daughters, they were led to practise wholesale female infanticide, and enjoyed an evil reputation for this habit up to quite recent years.

Till 1540 the Jādejas ruled over Cutch in three branches; but about that year Khengār, the son of Jām Hamīr, with the assistance of the Muhammadan king of Ahmadābād, succeeded in making himself head of the tribe and master of the whole province. He also obtained from the king the grant of Morvi in the north of Kāthiāwār, with the title of Rao. The Jām Rāwal, uncle of Khengār, who had previously ruled over a part of Cutch, fled to Kāthiāwār and founded the present reigning house of Navānagar, the rulers of which are still called Jāms. Under the Ahmadābād kings, Khengār paid no regular tribute; but he was liable for military service with 5,000 horse. When their power waned, Bhārmal, the successor of Khengār, attempted to make himself independent; but after two defeats, in 1590 and 1591, he agreed to admit the supremacy of the Mughal emperor, and was confirmed in his former position. The tribute at first exacted was remitted by the emperor Jahāngīr on condition of his giving pilgrims a passage to Mecca. For six generations after Khengār the Raos succeeded according to primogeniture. On the death of Rāyadhan (1697), his third son Prāgjī gained the throne by murder and usurpation. In order to pacify the son of his murdered brother, he placed him in independent charge of Morvi, which is still in the possession of his descendants. After 1718 the viceroy of Gujarāt sent numerous expeditions against Cutch, which were defeated, and the fort of Bhūj was built to repel their attacks. Subsequently a rebellion broke out, and Ghulām Shāh Kalhora, ruler of Sind, taking advantage of the disorders of the State, twice invaded Cutch with some success (1762–5). The disorder became intensified by the insanity of the Rao and the struggles of rival factions, one of which was headed by the famous minister Fateh Muhammad, until in 1809 the help of the British Government was sought to restore order in the country. It was not considered expedient to interfere

with the internal affairs of Cutch, and the treaty then made was chiefly directed to the suppression of piracy and the prevention of raids into Kāthiāwār. The treaty was little regarded; and all remonstrances failing, a British force moved into Cutch in 1815, when a new treaty was made, by which the British undertook to restore order, and Cutch to give compensation, ceding the fort of Anjār and twenty-three other villages. Peace having been restored, the British Government remitted all arrears due from Cutch, in return for which the Rao continued faithful to his alliance. But his debaucheries and cruelty excited the discontent of the Jādeja chiefs, who in 1818 applied for help to the British Government. As the Rao had made preparations for war, troops were moved against him, and Bhūj was captured. The Rao was deposed, and the Jādejas nominated a minor to be his successor, with the British Resident and a few chiefs as a regency. The British Government undertook the maintenance of order without introducing British civil or criminal jurisdiction, and guaranteed the Jādeja chiefs in their possessions. In 1822 the district of Anjār, formerly ceded to the British, was restored to Cutch for a yearly payment. The regency was closed in 1834 on the Rao's coming of age. The Rao of Cutch holds a patent or *sanad* from the British Government authorizing adoption, and in matters of succession the family follows the rule of primogeniture. He is entitled to a salute of 17 guns.

About the middle of the eighteenth century the population of Cutch is believed to have been considerably greater than it was for many years after. The misgovernment towards the close of the eighteenth century, the wars carried on by Fateh Muhammad, and the famine and pestilence of 1812 are said to have reduced the population by one-half. The enumerations of 1872, 1881, 1891, and 1901 returned the total population of the State at 488,507, 512,084, 558,415, and 488,022 respectively. In the last decade the population decreased by 13 per cent. through famine and plague. The results of the Census of 1901 may be summarized as follows:—Area 7,616 square miles, with 8 towns (BHŪJ, MĀNDVI, ANJĀR, MUNDRA, NALIYA, JAKHAU, Bachau, and Rapar) and 937 villages; average density of population, 64 persons per square mile. Hindus numbered 305,724; Muhammadans, 111,238; Jains, 70,467; Pārsīs, 91; and Christians, 53. About 9 per cent. of the total population are Rājputs and 5 per cent. are Brāhmans, while the cultivating, artisan, and other lower castes of Hindus constitute about 24 per cent. Of the Rājputs and their Bhāyād or 'brethren

The people.

of the tribe,' the majority are Jādejas. *Satī* and female infanticide were at one time very prevalent; the first has been suppressed entirely, and efforts for the suppression of the second have been attended with considerable success. In 1842 the proportion of males to females in the Jādeja tribe was found to be as 8 to 1; in 1901 it was about equal. Among the landed proprietors are a few Vāghela Rājputs, who reside in the cultivated spots of the arid country between north-western Kāthiāwār and Sind. The languages of Cutch are nominally two: Kachchhī (Cutchī) and Gujarātī, the former being a colloquial dialect of Gujarātī little used now in literature or business. Gujarātī is the written language. Persian and Urdū are but slightly used or known.

Agriculture. There is a fair proportion of good arable soil in Cutch. As most of it is sandy and easily tilled, holdings are large, averaging 35 acres. About 4,342 square miles are occupied for cultivation, of which one-half were actually under crop in 1903-4. Wheat and barley of indifferent quality are cultivated, as well as cotton, the ordinary varieties of millet and pulse, and a little garden produce. *Bājra* is of two kinds, small and large. Large *bājra* is sown in middling soils, and grows best when the land is slightly salt. *Jowār* is chiefly grown on clay soils. The chief pulse is *korad* (*Phaseolus aconitifolius*). During the decade ending 1903-4 Rs. 95,000 was advanced to cultivators, mostly in the four years ending 1902-3.

Wages and prices. The present daily wage of a carpenter or mason is 10 annas and of a labourer 6 annas. During 1903-4 the prices of the chief grains at Bhūj were: *bājra* 29 lb., wheat 26 lb., *jowār* 41 lb. per rupee.

Domestic animals. Of domestic animals, the camel is the most important, being famous for its fleetness. The Rao possesses large herds of these animals, as well as of cows and buffaloes. Cutch was long famous for its horses. The increased facility of importing Arab and other horses has much reduced the value of the Cutch breed.

Irrigation. Irrigation is practised over a considerable area. Wells are the chief source, watering 97 square miles. Owing to the porous nature of the upper soil, storage of water in ponds and reservoirs is difficult.

Forests. There are scattered forest Reserves in the State, of which the principal produce is grass, the trees grown in them being for the most part thorny, stunted, and of no value for building timber. The forest receipts amounted to Rs. 22,629 in 1903-4, of which Rs. 17,377 was derived from grass. Great efforts

have been made to plant trees on road-sides and pasture lands, and rewards have been offered for success in arboriculture.

Minerals.

Both iron and coal are found. Iron was formerly smelted, but at present the Cutch mines remain unworked. Coal seams occur in the Umia beds, but they are too thin to be mined at a profit. Alum and a coarse variety of saltpetre are also produced. In former times alum was prepared in great quantities; but, partly owing to the competition of Chinese alum, and partly because Cutch alum is said to injure cloth prepared with it, the demand has recently been greatly reduced. It is manufactured at Madh from the pyritous clays or alum shales at the base of the Tertiary. The Karimori hills furnish strong tough millstones, and good building stone abounds. Some of the best varieties are furnished by the Lower Jurassic rocks, and others much used are found in the Upper Tertiary beds. A yellowish marble is found at Khāvda and exported.

Trade and manufactures.

The trade of Cutch is mostly carried by sea. The chief imports are: of raw produce, grain, butter, sugar, groceries, fruit, and timber; and of manufactured articles, iron, brass, and copper-ware, cloth, furniture, stationery, and ivory. The exports are alum and cotton, millet, pulse, garlic, clarified butter, black-coloured cloth, and silver-ware. The Rājputāna-Mālwa Railway is said to have had an injurious effect on the sea-borne trade of Cutch, as traffic is thereby diverted to Bombay and Karāchi. In 1903–4 the imports by sea and land were valued at nearly 91 lakhs, and the exports at 14 lakhs. The customs dues are for the most part collected departmentally; in 1903–4 they realized about 8 lakhs. From Māndvi, the chief port of Cutch, between the middle of August and the middle of June, vessels sail to Arabia, Maskat, Sind, Kāthiāwār, Bombay, and the Malabar coast. The Cutch sloops, called *cotias*, generally built with decks, are esteemed very good sea-boats; and the Cutch sailors, Musalmāns and the Khārva caste of Hindus, are equal to any to be found on the western coast of India, in both skill and daring. Māndvi used at one time to have a close connexion with Zanzibar, on the African coast, from which were imported ivory, rhinoceros hides, and slaves. The importation of slaves into Cutch was stopped in 1836. Transit duties were abolished in 1873. In addition to the beautiful embroidery and silver-work, for which Cutch is chiefly noted, its manufactures of silk and cotton are of some importance. There are three ginning factories and ten cotton-presses in the State, which turned out 7,700 bales in 1903–4.

Communications. Owing to the want of made roads, the country becomes almost impassable during the rainy months. But in the fair season there is land communication northwards with the south-east Districts of Sind, with Mārwār, with North Gujarāt, and across the Little Rann with Jhālawār, the north-eastern division of Kāthiāwār. The total length of metalled roads at the end of 1903-4 was 165 miles, and of unmetalled 19 miles, while avenues of trees are maintained on 25 miles. The principal roads are those from Bhūj to Mandoī, from Bhūj to Khari Rohar, and from Bhūj to Mundwar. There is at present no railway communication in the State; but one proposal under discussion is to connect Wadhwān with Hyderābād through the Rao's territory, and the northern section of this line is already complete as far as Badin. An alternative alignment to the north of the Rann has also been proposed. A State line from the port of Tuna to Bhūj via Anjār is under construction. The number of post offices in the State was 110 in 1904, of which 11 were combined post and telegraph. The length of the Cutch State telegraph line is 230 miles.

Famine. Of the early famines in Cutch little is known. The State passed through a time of much distress in 1577. During the eighteenth century there were seven famine years—1746, 1757, 1766, 1774, 1782, 1784, and 1791—of which the famine of 1746 was particularly severe. In 1813 came the fiercest and most destructive famine, when many sold their children for food. A cat or a dog was a delicacy, and even human flesh was eaten. Since then until 1899 there have been at least fifteen years of severe scarcity. In two distress was due to the damage to the crops by locusts, in two to destruction done by rats, and in the others to capricious rainfall. In 1899-1900 the State suffered from famine owing to the short rainfall, which was only 2 inches, or one-sixth of the average. Relief works were organized, the daily number of persons employed on them rising to 49,022. The total cost of these works exceeded 24 lakhs, and Rs. 3,755 contributed by the Bombay Relief Committee was distributed in charitable relief.

Administration. The territory of Cutch has various jurisdictions: the first comprises the State (*khālsa*) portion, under the direct management of the Rao; the second, the estates of the Bhāyād, or cadets of the Rao's house, a body of feudal landlords; the third jurisdiction is that over seven villages in the centre of the territory, known as the Adhoi subdivision, which belongs to the Thākur of Morvi in Kāthiāwār; the fourth is that of the Jādeja court, presided over by a British officer, for the trial of

cases assigned to it under the settlement of 1875. For administrative purposes the State is divided into eight districts: namely, Abdāsa with Nakhtarāna, Anjār, Bachau, Bhūj with Khāvda, Lakhpat, Māndvi, Mundra, and Rāpar with Khadir.

Civil and criminal justice.

The *Varishta Adālat* exercises full civil and criminal jurisdiction throughout the State, sentences of death and transportation for life and fourteen years' imprisonment being subject to confirmation by the Rao. The State contains 53 civil and 45 criminal courts, divided into three classes: those with jurisdiction in the Rao's domain only, those with jurisdiction in the estates of petty chiefs, and those whose power extends over the whole of the State. They include a special institution styled the Jādeja court, under the presidency of the Naib Dīwān, which consists of a bench of four Jādeja nobles, members of the Bhāyād chosen by the Rao. This court owes its origin to the settlement of 1875, which made good the guarantee granted by the British Government to the Jādeja chiefs under the terms of the treaty of 1819. It hears civil and criminal cases arising both in the estates of the guarantee holders and beyond these. Since 1869 civil and criminal procedure codes have been introduced on the model of those in use in British territory. The commonest forms of crime are petty thefts and hurt, varied by occasional robberies.

Revenue and expenditure.

The total revenue of the State, including that of the Bhāyād and other petty chiefs, is estimated at 36 lakhs, of which 19 lakhs belongs to the Darbār and the balance to the *zamīndārs* and others. The chief sources in 1903–4 were customs (8 lakhs) and land revenue (6 lakhs), while recoveries of outstanding revenue contributed 2 lakhs, *sayar* and interest on invested capital one lakh each, stamps and excise Rs. 6,500 each, and miscellaneous revenue Rs. 30,000. The chief items of expenditure, which amounts annually to about 25 lakhs, are the tribute to the British Government (Rs. 1,86,950) for the maintenance of a British subsidiary force, the expenses of the Rao (1·2 lakhs), police (1·3 lakhs), revenue and customs (1·5 lakhs), exchange (2 lakhs), and advances (15 lakhs). The surplus revenue is invested in Government securities and in the purchase of *girās* lands in the State. There is a mint which coins *panchias* (= Rs. 1–5), *koris* (= 4 annas), and half-*koris*, which represent the ordinary currency of the State. The mint at present does not work at a profit, owing to the unusually high rates for *hundis*, or bills of exchange.

Land revenue.

The revenue system is *bhāgbatai*, or rent in kind, the State share, which varies from one-seventh to one-third of the

produce, being sold by auction. A high value is set upon the right of occupancy, but in *girāsiā* villages the cultivators are tenants-at-will. In State lands the right of occupancy is accorded only to those who have proved themselves worthy of the concession by sinking wells or converting 'dry-crop' into garden land. The revenue survey, introduced in 1873 and as yet incomplete, was on measurement only and not on classification or assessment of the fields. The land revenue was formerly farmed out each year, but since 1878 it has been collected by the Darbār officials.

Quasi-feudal position of the Bhāyād.

A notable fact in connexion with the administration of the Cutch State is the number and position of the Bhāyād. These are Rājput nobles forming the brotherhood of the Rao. They were granted a share in the territories of the ruling chief as provision for their maintenance, and are bound to furnish troops on an emergency. The number of these chiefs is 137, and the total number of the Jādeja tribe in Cutch is about 16,000. There have been several dissensions between the Rao and his Bhāyād, in which the British Government has mediated, guaranteeing to the latter enjoyment of their possessions. Their estates do not descend according to primogeniture, but a system of subdivision prevails. The aggregate income of the Bhāyād is estimated at about 17 lakhs. Some of them are invested with the power of trying civil and criminal suits. The residuary jurisdiction is vested in the Darbār and is exercised through the Jādeja court.

Municipalities.

There are four municipalities in the State, of which the principal are BHŪJ, MĀNDVI, and ANJĀR. Their total income in 1903-4 amounted to Rs. 28,000.

Public works.

The outlay on public works during the ten years ending 1903-4 was 17 lakhs, exclusive of 24 lakhs expended upon relief works during the famine of 1900, the chief works being the improvement of Māndvi harbour, and the construction of roads to connect Bhūj with Abdāsa, Mundra, and Wagad in the eastern portion of the State. Nearly 2 lakhs was spent in 1903-4 on the Anjār-Tuna railway and roads.

Army and police.

The State is by treaty bound to defray the actual expenses of the subsidiary force stationed at Bhūj for the protection of the country, to the extent of two lakhs annually. The military force consists of 254 cavalry and 853 foot soldiers, including 281 Arabs. In addition, there are some irregular infantry, and the Bhāyād could furnish on requisition a mixed force of about 4,000 men. The police force numbers 244 mounted and 572 foot. There are 12 prisons, with accommodation for 2,243

prisoners. The total prison population in 1903–4 was 1,855.

Of the total population, 8 per cent. (15·9 males and 1·2 females) could read and write in 1901. Education is sadly neglected among the Bhāyād, but a steady progress is observable. In 1881–2 there were 66 recognized schools in the State, with a total attendance of 5,342. The number of pupils in 1903–4 was 5,794 in the 129 State schools, while 128 private indigenous schools had an aggregate attendance of 5,064. The State schools comprise one high school, 6 Anglo-vernacular schools, 96 lower schools, 14 girls' schools (with 718 pupils), 10 night schools, one school of art, and one Sanskrit *pāthsāla*. The expenditure on education was Rs. 62,588. The State awards 98 scholarships, of which 57 are assigned to female students. The number of pupils at the Bhūj school of art is 156. Education.

At the 11 hospitals and dispensaries in the State more than 100,000 persons were treated in 1903–4, at a total cost of Rs. 34,000. The lunatic asylum contained 9 inmates in the same year, and the proportion of persons successfully vaccinated was 31 per 1,000. Medical.

[Sir J. M. Campbell, *Bombay Gazetteer*, vol. v.]

Anjār.—Town in the State of Cutch, Bombay, situated in 23° 6′ N. and 70° 10′ E. Population (1901), 18,014. The municipal income in 1903–4 was Rs. 4,149. Anjār possesses a dispensary. Outside the town is a temple containing the image on horseback of Ajaipāl, brother of the Chauhān chief of Ajmer, who in the beginning of the ninth century was driven out of Ajmer, and established himself as an anchorite in the town of Anjār, to which he gave his name. Some land has been assigned for the maintenance of this temple, and a large number of ascetics have settled here. The spiritual head of these ascetics is called a *pīr*, or saint. The town and district of Anjār were ceded by the Rao of Cutch in 1816 to the East India Company. In 1822 the arrangement was modified by a new treaty, under which the territory was restored, on condition of an annual money payment of Rs. 88,000. The only sum which had hitherto been required from the State of Cutch was a contribution of 2 lakhs towards the expenses of the British subsidiary force. This, however, was not paid with regularity, and a large debt was allowed to accumulate. In 1832, therefore, a new treaty was executed, remitting all arrears, and limiting the demand to 2 lakhs, to be reduced in proportion to reductions made in the subsidiary

force, provided that the sum to be paid should never be less than Rs. 88,000.

Bhadreswar (or Bhadrawati).—Site of an ancient city, now a petty village, in the south-east of Cutch State, Bombay. Most of the architectural remains have been removed for building stone; but the place is still interesting for its Jain temple, for the pillars and part of the dome of a Saiva shrine with an interesting *wāv* or well, and for two mosques, one of the latter almost buried by drifting sand from the shore. It was a very ancient seat of Buddhist worship; but the earliest ruins now existing belong to temples erected subsequent to A.D. 1125, when one Jagadeva Sāh, a merchant who had made a fortune as a grain-dealer in a time of famine, received a grant of Bhadreswar, and in repairing the temple 'removed all traces of antiquity.' The temple was a celebrated place of pilgrimage in the twelfth and thirteenth centuries. At the close of the seventeenth century it was plundered by the Muhammadans, and many of the images of the Jain Tīrthankars were broken. Since then it has been neglected, and having fallen into ruins, the temple stones, and those of the old city fort, were used for the building of the seaport town of Munra or Mundra.

[J. Burgess, *Archaeological Survey of Western India*, pp. 206–7 (1874–5).]

Bhūj.—Capital of the State of Cutch, Bombay, situated in 23° 15′ N. and 69° 48′ E., at the base of a fortified hill. Population (1901), 26,362, including 995 in cantonments. Bhūj is a municipality, and has a post office, a Central jail, a high school, a school of art, a library, a hospital, and a dispensary. It also contains a forest nursery, with about 1,600 plants. The municipal income in 1903–4 was Rs. 11,600. The income of the cantonment fund was Rs. 1,776 and the expenditure Rs. 1,775. The dispensary in the same year treated 28,000 patients, while 619 in- and 12,677 out-patients were treated in the hospital. A lunatic asylum contained nine inmates in 1903–4. The place is chiefly interesting for its archaeological monuments, and as having been at an early period dedicated to the snake divinity Bhūjanga or Bhūjiya. None of the buildings in the town is of earlier date than the middle of the sixteenth century. The mosque inside the city gate is remarkable for the thickness of its piers and their closeness to one another—an arrangement by which only a few of the worshippers can ever be within sight of the rest. The town contains the tomb of a *pīr*, and in its neighbourhood

are a number of shrines and Muhammadan *dargāhs* of no special importance.

Jakhau.—Seaport in the State of Cutch, Bombay, situated in 23° 14′ N. and 68° 45′ E., on the south-west coast, 60 miles south-west of Bhūj. Population (1901), 5,059. The town stands between 3 and 4 miles inland, in a plain bare of trees but yielding abundant crops. The landing-place is at Godia creek, 5 miles from the sea, dry at low water, but with a depth of from 8 to 12 feet at high tide. At springs, boats of from 20 to 25 tons burden can pass up. There is a stretch of back-water from the Indus to the Godia creek, known as Bagda, navigable by craft of 8 and 10 tons all the year round. Jakhau carries on a large trade with Bombay, exporting grain and importing piece-goods, groceries, timber, sugar, oil, and dates. The municipal income in 1903–4 was Rs. 800.

Māndvi Town (*Māndavi*).—Seaport in the State of Cutch, Bombay, situated in 22° 50′ N. and 69° 32′ E., on the coast of the Gulf of Cutch, 36 miles south-west of Bhūj. Population (1901), 24,683. The town contains a hospital and a dispensary, treating annually about 14,000 patients. Māndvi, or 'the mart,' also called Maska Māndvi, was known in old times as Raipur or Riyān. Two suburbs, Old and New Saraya, inhabited by traders and seafaring men, lie outside the town walls. Vessels of 70 tons can come within 500 yards. Māndvi is a port of call for steamers of the British India line. The *muallims* (pilots) are noted throughout Cutch. There are two lighthouses: one at the end of the breakwater with a revolving dioptric light of the fourth order; and the other on the south-west bastion of the fort, which is maintained by the State and is visible for 17 miles in clear weather. The light is of the holophotal order, and shows three flashes at intervals of thirty seconds. Māndvi is a municipality, with an income in 1903–4 of Rs. 6,600.

Mundra.—Port in the State of Cutch, Bombay, situated in 22° 49′ N. and 69° 52′ E., on the coast of the Gulf of Cutch, 29 miles south of Bhūj. Population (1901), 10,600. There is a made road from the port to the town, which is 3½ miles distant. The fort, which is situated 2½ miles north of the port, contains a white mosque distinguishable a good way off. The municipal income in 1903–4 was Rs. 4,000. Mundra contains a dispensary.

Naliya.—Town in the State of Cutch, Bombay, situated in 23° 18′ N. and 68° 54′ E. Population (1901), 6,080. This is one of the most thriving towns in Cutch. It is walled and

well built, and has a class of prosperous traders, being the residence of retired merchants who have made their fortunes in Bombay or Zanzibar. It contains a dispensary.

Boundaries and configuration.

Kāthiāwār (or Surāshtra).—The peninsula or western portion of the province of Gujarāt, Bombay, lying between 20° 41′ and 23° 8′ N. and 68° 56′ and 72° 20′ E. The extreme length of the peninsula is about 220 miles, its greatest breadth about 165 miles, its area about 23,445 square miles, and its population (1901) 2,645,805. Of these totals, about 1,245 square miles, with 173,436 persons, belong to the Gaikwār; about 1,298 square miles, with 128,559 persons, belong to Ahmadābād District; about 20 square miles, with 14,614 persons, belong to the Portuguese possession of Diu; while the remainder (area 20,882 square miles and population 2,329,196) is the territory forming the Political Agency subordinate to the Government of Bombay, established in 1822, having under its control 193 separate States, great and small, whose chiefs divide among themselves the greater portion of the peninsula of Kāthiāwār.

The Kāthiāwār Agency is divided for administrative purposes into four *prānts* or divisions—JHĀLAWĀR, HĀLĀR, SORATH, and GOHELWĀR—and the States have since 1863 been arranged in seven classes. The first-class States number 8, second-class 6, third-class 8, fourth-class 9, fifth-class 16, sixth-class 30, seventh-class 5, and the remaining 111 are combined into *thāna* circles.

Formerly Kāthiāwār was divided into ten *prānts*: namely, Jhālawār in the north; Machhukāntha, west of Jhālawār; Hālār, in the north-west; Okhāmandal, in the extreme west, belonging to Baroda; Bardā or Jethwār, along the south-west coast; Sorath, in the south; Babriāwār, a hilly tract in the south-east; Kāthiāwār, a large district near the middle; Undsarviya, situated along the Shetrunji river; and Gohelwār in the east, along the shore of the Gulf of Cambay, so named from the Gohel Rājputs who are the ruling race in it. In this last-named division is situated the Gogha *mahāl* of Ahmadābād District.

Physical aspects.

A square peninsula, standing boldly out into the Arabian Sea between the smaller projection of Cutch and the straight line of the Gujarāt coast, its physical features suggest that it may once have been an island or a group of islands of volcanic origin. Along its northern border stretch the shallow waters or the salt-encrusted surface of the Rann. On the east, between Kāthiāwār and the mainland, a belt of salt lands and

General Statistics for each State and Tāluka in Kāthiāwār

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4).		Tribute.	
					From land.	Total.	Amount.	To whom payable.
Gohelwār Prānt.					Rs.	Rs.	Rs.	
*1 Bhaunagar . .	Gohe Rāwal Rājput.	2,860	666	412,664	25,00,861	39,53,602	1,54,500	British, Gaikwār, and Junāgarh.
2 Pālitāna . . .	Gohel Rājput	290	91	52,856	5,11,277	6,40,911	10,364	Gaikwār and Junāgarh.
3 Jasdan . . .	Kāthi . . .	283	56	25,727	1,14,715	1,22,921	10,661	British and Gaikwār.
3 Vala	Gohel Rāwal Rājput.	109	40	13,285	2,10,000	2,25,000	9,202	Gaikwār and Junāgarh.
4 Lāthi	"	42	9	8,831	1,21,957	1,37,511	1,857	"
6 Bhadli . . .	Kāthi . . .	. .	16	2,988	12,000	16,000	1,357	British and Junāgarh.
6 Itaria	"	. .	2	506	2,800	3,000	355	"
6 Kotra Pitha .	"	. .	13	6,772	44,500	70,000	5,578	"
6 Vānkia . . .	"	. .	3	947	4,745	5,051	524	"
7 Kariāna . . .	"	. .	9	2,265	16,000	20,000	1,157	"
Akadia . . .	Chāvada Rājput.	. .	1	102	1,025	1,025	154	"
Alampur . . .	Gohel Rājput	. .	1	497	4,000	4,500	1,397	Gaikwār and Junāgarh.
Bābra	Kāthi . . .	. .	6	7,417	48,921	69,683	—	—
Bhandāria . .	Kāmalia Ahīr	. .	1	449	3,750	4,000	322	Gaikwār and Junāgarh.
Bhojavadar . .	Gohel Rājput	. .	1	764	5,000	5,300	550	"
Bildi . . .	Sindi . . .	. .	1	388	351	749	—	—
Bodā-no-nes .	Kāmalia Ahīr	. .	1	136	1,000	1,200	112	Gaikwār and Junāgarh.
Chamārdi . .	Gohel Rājput	. .	1	2,168	9,000	10,000	858	"
Chiroda . . .	Sarvaiya Rājput.	. .	1	247	2,250	2,500	135	"
Chitrāvāv . .	Gohel Rājput	. .	1	246	2,000	2,200	529	"
Chok	Sarvaiya Rājput.	. .	2	1,213	6,500	6,800	417	"
Dātha . . .	"	69	24	9,452	25,339	31,339	5,398	"
Dedarda . . .	"	. .	1	783	4,200	4,500	103	Gaikwār.
Derdi-Janbai .	Chāran . .	. .	1	492	4,338	4,870	—	—
Dhola	Gohel Rājput	. .	1	261	1,800	1,800	384	Gaikwār and Junāgarh.
Gadhāli . . .	"	. .	3	1,537	9,000	10,000	2,000	"
Gadhoola . .	"	. .	1	366	2,800	3,000	196	"
Gandhol . . .	"	. .	1	137	1,800	2,000	111	"
Iavej	Sarvaiya Rājput.	. .	2	979	5,000	5,200	290	"
Jālia Amarāji .	"	. .	1	444	2,300	2,500	136	"
Jālia Mānaji .	"	. .	1	236	2,000	2,200	31	Gaikwār.
Junā Pādar . .	Khasia Kolī .	. .	1	143	850	900	50	Gaikwār and Junāgarh.
Kamadhia . .	Mīr Muhammadan.	. .	1	496	4,079	5,611	377	British.
Kanjarda . .	Sarvaiya Rājput.	. .	1	313	1,500	1,600	128	Gaikwār.
Katodia . . .	Gohel Rājput	. .	1	347	2,000	3,000	221	Gaikwār and Junāgarh.
Khijadia . . .	Saiyid Muhammadan.	. .	1	391	3,000	3,100	—	—
Khijadia Dosāji	Gohel Rājput	. .	1	361	2,500	2,600	427	Gaikwār and Junāgarh.
Limbda . . .	"	. .	4	2,194	26,000	28,000	1,212	"
Morchopna . .	Kāmalia Ahīr	. .	1	375	1,500	1,750	163	"
Nilvala . . .	Kāthi . . .	. .	1	457	3,083	3,735	665	British and Junāgarh.
Pachhegām .	Gohel Rājput	. .	3	3,655	23,800	25,000	2,802	Gaikwār and Junāgarh.

* These numbers in the first column denote the class of the chiefs.

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4).		Tribute.	
					From land.	Total.	Amount.	To whom payable.
Gohelwār Prant—contd.					Rs.	Rs.	Rs.	
Pah	Sarvaiya Rājput.	. .	1	273	2,500	2,600	319	Gaikwār and Junāgarh.
Pānchāvada	"	. .	1	287	1,500	1,700	241	"
Rājpara	"	. .	1	552	2,000	2,150	274	"
Rāmanka	Gohel Rājput	. .	1	470	3,000	3,200	672	"
Rāndhia	Saiyid Muhammadan.	. .	1	693	6,779	6,779	—	—
Rānīgām	Sarvaiya Rājput and Kāthi.	. .	1	798	9,000	9,400	714	Gaikwār.
Ratanpur Dhāmanka.	Gohel Rāwal Rājput.	. .	2	651	4,200	4,200	903	Gaikwār and Junāgarh.
Rohisala	Sarvaiya Rājput.	. .	1	411	2,500	2,650	111	"
Samādhiala	"	. .	1	617	5,000	5,200	518	"
Samādhiala (Chabhāria).	"	. .	2	1,273	6,500	7,000	2,280	"
Samādhiala (Chāran).	Gohel Rājput	. .	1	195	2,500	2,700	—	—
Sanāla	Sarvaiya Rājput.	. .	1	416	3,000	3,200	322	Gaikwār and Junāgarh.
Sāta-no-nes	Kāmalia Ahīr	. .	1	240	1,000	1,200	109	"
Shevdivadar	Khasia Kolī	. .	1	177	1,000	1,100	60	"
Songadh	Gohel Rājput	. .	1	2,031	2,000	2,600	572	"
Toda Todi	"	. .	2	380	3,500	3,800	175	"
Vadāl	Kāmalia Ahīr	. .	1	320	2,750	3,000	154	Gaikwār.
Vadod	Gohel Rājput	. .	1	814	3,000	3,200	1,102	Gaikwār and Junāgarh.
Vāngadhra	"	. .	1	582	2,200	2,400	104	"
Vāvdi Dharvāla	"	. .	4	2,007	10,500	11,000	1,530	"
Vāvdi Vachhāni	"	. .	3	490	3,000	3,300	334	"
Vijā-no-nes	Khasia Kolī	. .	1	193	700	750	31	Gaikwār.
	Total	*4,210	1,003	577,757	38,27,670	55,27,787	2,25,248	
Hālār Prānt.								
1 Gondal	Jādeja Rājput	1,024	174	162,859	12,15,842	15,00,000	1,10,721	British and Junāgarh.
1 Morvi	"	822	141	87,496	4,43,250	7,10,044	61,559	British and Gaikwār.
1 Navānagar	"	3,791	669	336,779	19,00,719	24,84,210	1,20,093	British, Gaikwār, and Junāgarh.
2 Dhrol	"	283	68	21,906	62,622	1,07,175	10,231	Gaikwār and Junāgarh.
2 Rājkot	"	282	61	49,795	2,91,343	3,60,150	21,321	British and Junāgarh.
2 Wānkāner	Jhāla Rājput	415	102	27,383	1,80,054	2,18,925	18,879	"
4 Kotda Sāngāni	Jādeja Rājput	74	20	8,835	74,568	91,586	11,616	"
4 Mālia	"	103	17	9,075	69,874	1,55,994	1,367	Gaikwār and Junāgarh.
4 Vīrpur	"	67	13	6,152	52,279	65,363	4,114	British and Junāgarh.
5 Gadhka	"	23	5	1,636	8,720	12,633	845	"
5 Gavridad	"	27	6	1,916	18,500	24,126	1,621	"
5 Jālia Devāni	"	36	10	2,444	14,966	16,230	1,552	Gaikwār.
5 Kotharia	"	. .	6	2,156	22,712	25,930	1,246	British and Junāgarh.
5 Mengni	"	35	8	3,354	25,465	29,847	3,412	British.
5 Pāl	"	22	5	1,359	9,983	17,836	1,647	British and Junāgarh.
6 Bhādva	"	. .	4	1,051	13,375	15,532	1,632	"
6 Rājpara	"	. .	9	1,862	10,732	13,654	3,163	"
6 Shāhpur	"	. .	4	1,156	6,948	15,233	610	"

* This is the actual area of the *prānt*. No details are available for small States.

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903–4).		Tribute.	
					From land.	Total.	Amount.	To whom payable.
Hālār Prānt—contd.					Rs.	Rs.	Rs.	
7 Khirasra . .	Jādeja Rājput	. .	13	3,117	11,000	15,432	2,716	British and Junāgarh.
7 Lodhika . . .	"	. .	12	4,554	24,554	34,730	1,692	"
7 Vadāli . . .	"	. .	1	409	5,109	6,435	324	"
Amrāpur . . .	Shaikh Muhammadan.	. .	2	1,240	8,000	8,000	511	British.
Bhalgām Baldhoi.	Kāthi . . .	. .	1	617	8,471	9,168	262	British and Junāgarh.
Drāfa	Jādeja Rājput	. .	24	8,456	50,000	70,000	4,871	"
Kanksiāli . .	"	. .	1	224	2,102	2,538	111	"
Kānpar Ishwaria.	Kāthi . . .	. .	2	1,365	15,457	16,135	347	"
Kotda Nāyāni .	Jādeja Rājput	. .	1	1,000	9,313	11,065	687	Gaikwār and Junāgarh.
Mowa	"	.	1	247	2,977	3,322	158	British and Junāgarh.
Mulila Deri .	"	. .	7	2,350	9,845	12,488	1,454	"
Satodad-Vāvdi	"	. .	4	2,790	9,000	12,500	1,927	"
Sisāng Chandli	"	. .	2	1,756	15,324	17,014	946	"
Virvao . .	"	. .	1	193	1,515	1,540	193	"
	Total	*7,477	1,394	755,532	45,94,619	60,84,835	3,91,828	
Jhālawār Prānt.								
1 Dhrāngadhra .	Jhāla Rājput	1,156	134	70,880	2,99,398	4,43,761	44,677	British and Junāgarh.
2 Limbdi . . .	"	344	47	31,287	1,76,409	2,02,264	45,534	"
2 Wadhwān . .	"	236	32	34,851	3,28,094	3,95,954	28,692	"
3 Chuda . . .	"	78	14	12,005	1,07,479	1,19,277	7,143	"
3 Lakhtar . . .	"	248	51	15,114	55,110	70,250	7,351	"
3 Sāyla	"	222	39	11,661	62,000	66,550	15,511	"
4 Bajāna . . .	Jāt Malek .	183	27	10,279	46,326	71,335	7,938	"
4 Muli	Parmār Rājput.	133	20	15,136	31,263	80,000	9,354	"
4 Pātdi	Kunbi . . .	39	7	2,190	85,950	88,278	3,219	British.
5 Vanod . . .	Jāt Malek .	57	13	3,911	26,833	30,924	1,953	British and Junāgarh.
6 Anandpur . .	Kāthi . . .	. .	34	5,061	29,652	31,902	920	"
6 Bhoika . . .	Jhāla Rājput	. .	3	3,013	19,500	20,000	2,132	British, Junāgarh, and Sukhdi.
6 Chotila . . .	Kāthi . . .	. .	32	6,635	36,313	41,150	898	British and Sukhdi.
6 Dasāda . . .	Malek . . .	120	22	10,941	1,80,331	2,08,354	12,991	"
6 Rai-Sānkli . .	Kunbi . . .	. .	2	427	6,254	6,579	938	British and Gaikwār.
6 Rājpur . . .	Jhāla Rājput	. .	3	1,718	20,427	26,883	2,598	British and Junāgarh.
6 Sanosra . . .	Kāthi . . .	. .	3	667	4,133	4,965	237	British, Junāgarh, and Sukhdi.
6 Vadod . . .	Jhāla Rājput	. .	3	1,264	12,356	12,356	1,530	British and Junāgarh.
Ankevālia . .	"	. .	3	1,497	19,500	21,000	1,526	"
Bāmanbore . .	Kāthi . . .	. .	4	847	4,015	4,229	76	British and Sukhdi.
Bhadvāna . .	"	. .	2	400	4,225	4,225	1,081	British and Junāgarh.
Bhālala . . .	"	. .	1	265	1,424	1,424	474	British.
Bhalgāmda . .	"	. .	3	1,588	7,000	8,000	1,505	British and Junāgarh.
Bhārejda . .	"	. .	1	421	1,283	1,702	126	British and Sukhdi.
Bhathan . . .	Jhāla Rājput	. .	1	405	1,500	1,800	701	British and Junāgarh.
Bhimora . . .	Kāthi . . .	. .	11	1,204	10,241	10,555	371	"

* This is the actual area of the *prānt*. No details are available for small States.

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4). From land.	Revenue (1903-4). Total.	Tribute. Amount.	Tribute. To who payabl
Jhālawār Prānt —contd.					Rs.	Rs.	Rs.	
Chachāna . .	Jhāla Rājput	. .	1	459	5,000	5,000	318	British.
Chhalāla . .	"	. .	1	557	4,517	5,017	1,122	British, nāgarh, a Sukhdi.
Chobāri . . .	Kāthi . . .	. .	3	280	4,401	4,556	199	British a Sukhdi.
Darod . . .	Jhāla Rājput	. .	1	131	2,500	3,000	416	British a Junāgarh
Devlia . . .	"	. .	2	494	2,240	2,240	523	"
Dudhrej . . .	"	. .	2	2,026	20,000	25,000	1,199	"
Gedi	"	. .	2	574	4,000	4,500	1,339	"
Gundiali . . .	"	. .	2	1,465	12,262	17,865	1,408	British.
Jākhan . . .	"	. .	1	441	2,300	2,500	288	British an Junāgarh.
Jamar . . .	"	. .	1	289	3,960	3,960	464	British.
Jhāmpodad . .	"	. .	1	451	3,200	3,400	138	"
Jhinjhūvāda including Rozva.	Kolī . . .	165	18	11,732	67,989	74,343	11,074	"
Kamālpur . .	Jhāla Rājput	. .	1	670	4,200	4,500	776	"
Kanthāria . .	"	. .	2	1 573	10,000	11,000	1,788	British, Ju nāgarh, an Sukhdi.
Karmad . . .	"	. .	1	465	8,000	8,200	231	British an Sukhdi.
Kārol	"	. .	2	981	10,935	11,000	796	British an Junāgarh.
Kesria . . .	"	. .	1	146	1,900	1,900	278	British.
Khambhlāv . .	"	. .	2	852	1,400	1,500	869	British an Junāgarh.
Khāndia . . .	"	. .	1	627	4,000	4,000	900	British, Ju nāgarh, an Sukhdi.
Kherāli . . .	"	. .	2	1,638	24,600	25,880	678	British.
Laliyād . . .	"	. .	1	755	6,000	6,000	362	"
Mātra Timba .	Kāthi . . .	. .	1	352	2,591	2,727	362	British an Junāgarh.
Mevāsa . . .	"	. .	6	619	5,085	6,796	559	British an Sukhdi.
Munjpur . . .	Parmār Rājput	. .	1	436	10,000	10,000	603	British.
Palāli	Jhāla Rājput	. .	2	320	600	650	403	British and Junāgarh
Pāliyād . . .	Kāthi . . .	. .	17	6,970	38,055	43,699	1,213	"
Rāmparda . .	"	. .	1	299	607	625	75	British an Sukhdi.
Sāhuka . . .	Jhāla Rājput	. .	1	801	9,000	9,200	584	British an Junāgarh.
Samla	"	. .	2	916	8,000	8,000	1,063	"
Sejakpur . . .	Kāthi . . .	. .	4	864	2,052	3,600	433	"
Sudamda-Dhandhalpur.	"	. .	27	5,359	22,208	24,746	3,124	"
Talsāna . . .	Jhāla Rājput	. .	7	1,691	10,000	10,500	1,052	"
Tāvi	"	. .	1	509	2,000	2,000	335	"
Untdi	"	. .	1	240	1,100	2,000	539	
Vana	"	. .	3	2,749	26,000	26,000	3,993	"
Vanāla . . .	"	. .	1	311	2,100	2,300	396	British.
Vithalgadh . .	Kāyasth Prabhu.	26	6	1,174	7,226	7,659	—	—
	Total	*3,978	641	293,883	19,27,044	23,59,580	2,39,376	
Sorath Prānt.								
1 Junāgarh . .	Muhammadan	3,283	818	395,428	18,91,616	26,22,753	65,604	British and Gaikwār.
1 Porbandar . .	Jethwa Rājput	636	97	82,640	2,94,168	9,74,734	48,504	British, Gaikwār, and Junāgarh.

* This is the actual area of the *prānt*. No details are available for small States.

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4).		Tribute.	
					From land.	Total.	Amount.	To whom payable.
Sorath Prānt —contd.					Rs.	Rs.	Rs.	
1 Jāfarābād . .	Habsi . . .	42	12	12,097	22,905	61,800	—	—
3 Bāntva - Mānāvadar.	Bābi Muhammadan.	90	23	14,478	1,50,951	2,35,447	14,821	British.
3-7 Jetpur . . .	Kāthis . . .	724	148	107,049	7,94,509	9,29,683	59,223	British, Gaikwār, and Junāgarh.
5 Bāntva (Gidad).	Bābi Muhammadan.	132	33	24,374	1,65,674	2,28,178	14,820	British.
5 Dedān . . .	Kāthi - Baberia-Kotila.	50	12	4,394	30,950	59,405	4,181	Gaikwār and Unamamuli (1225).
5 Vasāvad . . .	Nāgar Brāhman.	17	4	5,137	12,000	18,000	766	British.
6 Bagasra . . .	Kāthi . . .	. .	17	17,339	1,13,932	1,20,759	4,098	Gaikwār and Junāgarh.
6 Kuba	Nāgar Brāhman.	3	1	396	3,220	3,340	—	—
6 Vinchhāvad .	"	4	1	414	4,000	4,100	—	—
Charkha . . .	Kāthi . . .	. .	2	1,519	25,000	27,000	541	Gaikwār and Junāgarh.
Dahida . . .	"	. .	3	915	13,000	13,500	—	—
Dholarva . .	"	. .	1	460	8,000	8,300	126	Gaikwār and Junāgarh.
Gadhia . . .	"	. .	2	528	4,200	4,500	295	"
Garmali Moti .	"	. .	1	385	4,500	4,700	220	"
Garmali Nāni .	"	. .	1	340	2,300	2,400	194	Gaikwār.
Gigasāran . .	"	. .	1	582	6,500	6,600	—	—
Hālaria . . .	"	. .	4	1,268	12,000	12,500	179	Gaikwār and Junāgarh.
Jāmka . . .	"	. .	1	601	6,000	15,000	185	Gaikwār.
Kaner . . .	"	. .	1	261	2,300	2,400	195	"
Kāthrota . .	"	. .	1	138	2,200	2,300	52	"
Khijadia Najani	"	. .	1	156	2,700	2,800	52	"
Lākhāpadar .	"	. .	1	544	2,700	3,000	178	Gaikwār and Junāgarh.
Mānāvāv . .	"	. .	1	400	4,000	4,100	172	"
Monvel . . .	"	. .	3	1,967	18,000	18,200	313	Gaikwār.
Silāna	"	. .	1	774	6,000	6,250	102	"
Vāghvadi . .	"	. .	1	109	1,400	1,450	154	Gaikwār and Junāgarh.
Vekaria . . .	"	. .	1	595	6,000	6,150	55	Gaikwār.
	Total	*5,217	1,193	675,288	36,10,725	53,99,349	2,15,030	
Civil Stations and other villages.†	. . . . . .	. .	11	26,736	. . .	. . .	. . .	
Grand Total	. . . . . .	‡20,882	4,242	2,329,196	1,39,60,058	1,93,71,551	§10,71,482	

* This is the actual area of the *prānt*. No details are available for small States.

† The total number of villages and population according to the Census of 1901 are respectively 4,242 and 2,329,196: of the former, 11 (three civil stations and the rest villages of insignificant *tālukdārs* who do not pay tribute) with an aggregate population of 26,736, have been omitted from the *prānt* totals. They are: Rasnal, Pipalva (Vithalgadh) (1,811), Ranparda (459), Hathasni (939), and Noghanvadar (113), in Gohelwār; Rājkot Civil Station (8,992), and Hadala (468), in Hālār; Wadhwān Civil Station (11,255), in Jhālawār; and Jetalsar Civil Station (463), Dhasa (1,473), and Shapur (763), in Sorath *prānt*.

‡ Separate figures for *tālukas* under *thāna* circles are not available. The areas of the whole *thāna* circles, in square miles, are—

Bābra . . .	299	Chok. . . .	104	Wadhwān *thāna*	197	Pāliyad . .	227
Songadh . .	82	Lodhika . .	265	Chotila . .	368	Lākhāpadar .	137
Chamārdi . .	72	Dhrāfa . . .	208	Bhoika . .	179	Bagasra . .	89

§ The total amount of tribute of all kinds is Rs. 10,79,371, according to Aitchison's *Treaties*. To this sum Rs. 1,225 on account of Unamamuli paid by Dedān has been added; while Rs. 9,114, the amount of tribute and *zortalbi* paid by the Amreli *mahāl* of the Gaikwār, has been omitted.

the long lagoon of the Nal mark the line of the depression, which, unless the evidence of travellers is unusually at fault, formed until recent times during the rains a connecting link between the Gulf of Cambay and the Little Rann.

Three travellers of authority, all of whom visited Cambay, speak of Kāthiāwār as an island. The first of these, Varthema, 1503–8 (Badger's edition, p. 105), says that the city of Cambay lies 3 miles inland close to the mouth of the Indus. Baldaeus, 1672 (*Churchill's Voyages*, vol. iii, p. 566), states that Cambay stands on one of the largest channels of the Indus; Alexander Hamilton, 1690–1721 (*New Account*, vol. i, p. 131), states that one of the largest branches of the Indus running into the sea at Cambay makes Gujarāt an island. Still more difficult to consider a mistake is Captain MacMurdo's statement in 1813 (*Journal, Royal Asiatic Society*, vol. i, p. 41), that a tract similar to the Rann and known partially by the same name connects the Gulf of Cutch and Cambay, forming an island off the peninsula of Gujarāt for six months in the year. From the coast Kāthiāwār rises to a central table-land where all the rivers of the peninsula take their rise. The silt of the old eastern branch of the Indus and of the rivers Luni, Banās, Saraswatī, and Rupen, gradually filling the sea-bed, with some help possibly from the great upheaval of 1820, has joined north-east Kāthiāwār to the mainland of Gujarāt.

Kāthiāwār was known to the Greeks and Romans under the name of Σαυραστρήνη; the Muhammadans called it by the prākritized name of Sorath, and to this day a large division in the south-west, 100 miles in length, retains that title. Another tract, quite as large, to the east of the centre, however, has long been known as Kāthiāwār, from having been overrun by the Kāthis, who entered the peninsula from Cutch in the thirteenth and fourteenth centuries. In the fifteenth century the whole tribe was driven out of Cutch, and in that and the following century conquered a considerable territory. The Marāthās who came into contact with them in their forays, and were sometimes successfully repelled by them, extended the name of Kāthiāwār to the whole province, and from them has been borrowed the appellation in its wider sense; but by Brāhmans and the natives generally it is still spoken of as Surāshtra.

Hills. The surface of Kāthiāwār is for the most part undulating, with low ranges of hills running in very irregular directions. With the exception of the Thāngā and Māndav hills, in the west of Jhālawār, and some unimportant hills in Hālār, the

northern portion of the country is flat; but in the south, from the neighbourhood of Gogha, the Gīr range runs nearly parallel with the coast, and at a distance of about 20 miles from it, along the north of Babriāwār and Sorath to the neighbourhood of Girnār. Opposite this latter mountain is the solitary Osam hill, and still farther west is the Bardā group, between Hālār and Bardā, running about 20 miles north and south from Ghumli to Rānāwāo. The Girnār clump of mountains is an important granitic mass, the highest peak of which rises to 3,500 feet above the sea.

The principal river is the Bhādar, which rises in the Māndav hills and, flowing south-west, falls into the sea at Navibandar, in Bardā, after a course of about 110 miles, everywhere marked by highly cultivated lands bordering its course. From the same hills rises another Bhādar, known as the Sukha Bhādar, flowing eastward into the Gulf of Cambay. Other rivers are the Aji, Machhu, Bhogāva, and Shetrunji, the latter remarkable for wild and romantic scenery. Rivers.

Of salt-water creeks the most important are Hansthal, connecting the outer and inner Gulf of Cutch; Bhaunagar, forming the channel between that town and the Gulf of Cambay; the Sundrai, 8 miles north of Bhaunagar; the Bavliali, 2 miles north of the Sundrai creek; and the Dholera, leading from the Gulf of Cambay 10 miles inland to the town of Dholera. Creeks.

Notwithstanding its extent of coast, Kāthiāwār has no really good harbour except Beyt, at the north-east corner of Okhāmandal. The principal ports are Vanānia, Jodiya, Bedi, and Salāya in the Gulf of Cutch; Dholera, Bhaunagar, and Gogha in the Gulf of Cambay; and Mahuva, Jāfarābād, Diu, Verāval, Māngrol, Navibandar, and Porbandar on the south and west coasts. Of these, Vavānia, Jodiya, Bedi, Salāya, Navibandar, Mahuva, Bhaunagar, and Dholera are on creeks, and communication with them depends on the tide; while the rest are little better than open roadsteads. Harbours.

The chief islands are Piram in the Gulf of Cambay; Chānch, Shiāl, and Diu off the south coast; Beyt in the west; and the Chānka islets in the Gulf of Cutch. Islands.

The peninsula contains few lakes larger than village reservoirs. The most remarkable are the Nal at the head of the Rann of Cambay, and the Gheds on the south-west coast near Mādhavpur. Lakes.

With the help of the Nal, two *ranns* or salt wastes nearly encircle the east and north-east of Kāthiāwār, the little CUTCH RANN and the Rann of Cambay stretching about 35 miles Salt wastes.

north from the mouth of the Sābarmatī. From the head of the Gulf of Cutch, at the mouth of the Hansthal creek, the Little Rann, covering an area of about 1,600 square miles, stretches north-east for about 60 miles, varying from 5 to 30 miles in breadth, and connecting with the Great Rann. In the south-west corner are the KHĀRĀGHODA salt-works.

The Rann of Cambay, a long, shallow, rocky channel or dry estuary, extends north-west about 35 miles from near the mouth of the Sābarmatī at the upper end of the Gulf of Cambay. The lower part is rich in marine silt, and joins the Nal during the south-west monsoon, forming a connected sheet of water which spreads over the neighbouring tracts of the Bhāl and the Nalkāntha, turning the villages into islands and cutting off communication with Ahmadābād. The upper end of the Rann is now crossed by the railway between Viramgām and Wadhwān.

Geology. Basalt beds belonging to the Deccan trap formation occupy the greater portion of the peninsula of Kāthiāwār. They lie almost horizontally, and have been deeply denuded, so that countless numbers of intrusive dikes, filling the fissures through which the molten material was injected, have become visible in every district. These dikes are remarkable for their columnar structure, consisting of huge hexagonal prisms loosely stacked upon one another and arranged horizontally. They exert a pronounced influence upon the underground drainage, a circumstance well-known to the agriculturists, who persistently sink their irrigation wells along the dikes, tracing out their course with great assiduity, and are almost invariably rewarded by the presence of water at a depth of 15 to 20 feet. In some instances apparently the joints and cracks in the dike rock communicate with some deep-seated water-bed; in other cases the dikes seem to wall up and keep in on one side the water of the adjoining strata. The Girnār mountains, and probably the Bardā hills north-east of Porbandar, appear to be great intrusive masses of the same age as the basalt flows and columnar dikes; they may represent the inner cores of great volcanoes now denuded of the volcanic ejectamenta that formerly covered them. The rocks of Girnār contain the somewhat uncommon mineral alaeolite, and some of them belong to the exceptional class of rocks known as monchiquites. The basaltic formation has a very low dip from north to south, perhaps original, in consequence of which some of the older underlying rocks in the northern part of the peninsula, and some of the newer superincumbent strata, are exposed. The

older rocks in the northern part belong to two different series: the Umia beds, which are of neocomian, that is, of the Lower Cretaceous age; and the Lameta beds, which are Upper Cretaceous (cenomanian). The Umia beds (which take their name from a village in Cutch) are exposed principally about Dhrāngadhra and farther south-west. They consist chiefly of sandstone, open, imperfectly cemented, and unevenly stratified, with coarse and gritty, or even conglomeratic runs and layers. There are, however, some thick beds of fine texture among them, and a few subordinate bands of shale. The Lameta beds occur principally round Wadhwān, where they are locally known as the Wadhwān sandstones. Beds newer than the basalts and overlying them run along the southern sea-board of the peninsula from Dwārka on the west to Bhaunagar on the east. They include sandstones and pure limestones with marine fossils identical with those of the Gaj group in Sind, overlaid by sandstones and conglomerates of fluviatile origin corresponding in age with the Siwālik. These fluviatile beds include an older series, sometimes with abundant remains of terrestrial animals, as for instance in the island of Piram, corresponding with the Lower or Middle Siwāliks; and a newer series known as the Dwārka beds, corresponding with the Upper Siwāliks. Laterite sometimes intervenes between the basalt and the overlying Tertiary beds.

A belt of recent alluvium follows the southern coast, and there are large alluvial areas in the eastern part of the peninsula near the Gulf of Cambay and in its northern part where the alluvium merges into the silt of the Little Rann. Raised beaches occur at some places along the sea-coast. The somewhat low rainfall allows to a certain extent the accumulation of wind-borne deposits; the finer particles of the sand on the sea-beach, consisting principally of the minute shells of foraminifera, are blown all over the land, where they accumulate to form the curious calcareous rock known as miliolite. In the immediate neighbourhood of the coast this wind-formed miliolite merges into the raised beaches. The well-known 'Porbandar stone,' which is largely quarried and shipped to Bombay, is a variety of miliolite[1].

[1] F. Fedden, *Memoirs, Geological Survey of India*, vol. xxi, pt. ii; J. W. Evans, *Quarterly Journal, Geological Society of London*, vol. lvi (1900), pp. 559–83, and vol. lvii (1900), pp. 38–54. Descriptions of the fossil bones from the Island of Perim (Piram) have been published by H. Falconer in vol. i (1854) of the *Quarterly Journal, Geological Society of London*, and by R. Lydekker in Series X of the *Palaeontologia Indica*.

Flora and fauna.

Except in the Gīr forest, Kāthiāwār is thinly wooded; and even there the timber is of little value. The mangrove abounds along the shores of the peninsula and is largely used as fuel. The coco-nut grows rapidly and bears steadily all along the south coast, and the wild date is met with in most parts of the peninsula. Excellent mangoes are grown in Mahuva from Bombay grafts.

The principal wild animals include the lion (found in the Gīr range), leopard, hunting cheetah, antelope, hog, hyena, wolf, jackal, wild cat, fox, porcupine, and smaller vermin. Of reptiles, the Indian python, the cobra, the whip-snake, and others abound, and the crocodile and land tortoise are common.

The lion was formerly common all over the Kāthiāwār peninsula, extending into Gujarāt and Central India. It is now found only in the Gīr forest, and rarely on the Girnār mountain. Its mane is shorter and its colour lighter than that of the African lion. Approximating in size to the tiger, it is somewhat heavier in bulk and stronger. It seeks the loneliest spot for its midday sleep, and when disturbed does not try to conceal its escape like the tiger, but walks boldly away. It used to avoid man more than either the tiger or leopard, and never lived near a village or hamlet; but since the last famine these habits have changed. Of a gregarious disposition, it moves in family parties, comprising occasionally three generations. Careful preservation of these lions has resulted in an appreciable increase of their number, which at present must be from 60 to 70. Since the last famine they have done considerable damage to cattle, and cases of attack upon men have also been reported from outlying villages.

Climate and temperature.

The climate of Kāthiāwār is in general pleasant and healthy. January, February, and March are marked by heavy dews and thick fogs. The hot season, which is the healthiest period of the year, begins in April and lasts until the rain falls in June. The hot wind is felt most in the south. From September to the first part of November the climate is unhealthy for both Europeans and natives. A violent bilious attack, lasting for four or five days and followed by ague and fever, is the only special Kāthiāwār disease.

Rainfall.

The heaviest rainfall in the peninsula occurs at Junāgarh (42 inches), in the Sorath *prānt*; at Rājkot, in the Hālār *prānt*, the average yearly fall is 30 inches; at Wadhwān, in Jhālawār, 21 inches. The monsoon begins in June and ends

in October, the wettest months of the year being July to September.

During the last century Kāthiāwār suffered several times from earthquakes. On April 29, 1864, a shock occurred in many parts of the peninsula a little after 11 a.m. It was preceded by a low rumbling noise followed by a vibration for six seconds, causing widespread panic and excitement. On Nov. 27, 1881, at midnight a shock of earthquake was felt at Rājkot. In September and October, 1898, shocks of earthquake were felt in the northern districts, and in other years lesser shocks; but none of them caused any damage. Earthquakes.

At a very early period Surāshtra was doubtless brought under the influence of Brāhmanical civilization, and, from its position on the coast, was most accessible to influences from the west. The edicts of Asoka (265–231 B.C.) were inscribed by that monarch on a huge granite boulder between Junāgarh and Girnār. The Saraostos of Strabo is not improbably identical with Surāshtra; and if so, the peninsula was included in the conquests of the Indo-Scythian kings (*circa* 190–144 B.C.). Its shores were well-known to the Alexandrian merchants of the first and second centuries, but there is considerable difficulty in identifying the places mentioned by them. History.

Of the early history of the country we have but scanty notice. Mauryas, Greeks, and Kshatrapas probably held it in succession, and were followed for a brief space by the Guptas of Kanauj, who apparently governed by *senāpatis*. The later *senāpatis* became kings of Surāshtra, who placed their lieutenants at Vallabhi-nagar (identified with the buried city at Vala, 18 miles north-west of Bhaunagar). When the Gupta empire fell to pieces, the Vallabhi kings, whose dynasty was founded by Bhattāraka, a Gupta commander, extended their sway over Cutch and defeated the Mers, who appear to have gained considerable authority in Kāthiāwār between 470 and 520. It was in the reign of Dhurvasena II (632–40) that the Chinese pilgrim Hiuen Tsiang visited Va-la-pi (Vallabhi ?) and Su-la-ch'a (Surāshtra), the inhabitants of which, he says, are indifferent and not given to learning, but profit by the proximity of the sea, and engage much in trade and barter. The people he described as numerous and wealthy, and he remarked many convents established for the benefit of recluses engaged in the contemplative piety of Buddhism.

How Vallabhi fell is not known, but possibly it was subverted by Muhammadan invaders from Sind. The seat of government

was then moved farther north beyond the borders of Kāthiāwār, and remained at Anhilvāda from 746 to 1298, during which time various petty kingdoms arose, and the Jethwas became a powerful tribe in the west of Surāshtra. Anhilvāda was sacked by the Muhammadans in 1194, and finally conquered in 1298. The Jhālas are said to have been settled in Northern Kāthiāwār by the Anhilvāda kings. The Gohels (now in Eastern Kāthiāwār) came from the north in the thirteenth century, retreating before the tide of Muhammadan conquest, and were enabled by the decadence of Anhilvāda to conquer new seats for themselves. The Jādejas and the Kāthis came from the west, through Cutch. The sack of Somnāth, in Southern Kāthiāwār, by Mahmud of Ghazni in 1026, and the capture of Anhilvāda in 1194, were the prelude to occasional Muhammadan invasions of Kāthiāwār. In 1324 Zafar Khān destroyed the temple of Somnāth. He was the first of the Muhammadan kings of Gujarāt, who reigned in prosperity from 1396 to 1535, and in decadence to the close of 1572, when Gujarāt was conquered by Akbar. The Ahmadābād kings, who held the tributary chiefs of Kāthiāwār in subjection, carefully fostered commerce, and developed the ports of Māngrol, Verāval, Diu, Gogha, and Cambay.

About 1509 the coast was threatened by the Portuguese. Bahādur, defeated by Bābar's son Humāyūn, sought safety in Diu, and afterwards permitted the Portuguese adventurers to build a factory, which they turned into a fort, after having treacherously killed Bahādur (1537). The island and fort of DIU are still a Portuguese possession. Gujarāt, after its conquest by Akbar in 1572, was ruled by viceroys from the court of Delhi, until the Marāthās supplanted the imperial power. In 1705 the Marāthās entered Gujarāt, and by 1760 had firmly established their rule; but the following half-century was a time of little ease for the tributaries in Kāthiāwār, and petty wars were frequent. During the latter part of the eighteenth century, according to Musalmān and Marāthā custom, the Gaikwār, partly for himself and partly for his overlord the Peshwā, sent yearly a revenue-collecting army (*mulk-giri*) to collect contributions from the chiefs of Western and Northern Gujarāt. As this armed expedition caused much waste and confusion, the British Government agreed to associate itself with the Gaikwār in recovering the Marāthā tribute from the Kāthiāwār States.

In 1803 some of the weaker *tālukdārs* applied to the British Resident at Baroda for protection, offering to cede their terri-

tory to the Company. They were then independent of the Peshwā and the Gaikwār, with the exception of being bound to furnish contributions. In 1807 the forces of the Company and the Gaikwār advanced into Kāthiāwār, and the chiefs entered into engagements to pay a fixed tribute to their overlords, to keep the peace towards each other, and to maintain order within their own limits. In return, they were secured from the visitations of the *mulk-giri* force, which used to appear at harvest-time and, in default of payment, ravage the crops and fire the villages. Internal warfare and resistance to the supreme authority were ended in 1807-8 by the settlement effected by Colonel Walker, one great feature of which was that the tributes were fixed, and the work of collection was undertaken by the British Government, which also acquired the Peshwā's rights in Kāthiāwār after the Sātāra proclamation in 1818. In 1820 the Gaikwār agreed to have his share collected and paid through the British Government.

Under the ruling houses there are numerous petty Rājput lairds and yeomen, representatives of old houses long ruined and supplanted, or of the younger brothers of chiefs who have received their *girās* or portions from the estate.

Archaeology. Kāthiāwār has many notable antiquities, which have been fully described by Dr. James Burgess[1]. Besides the famous inscription of Asoka already referred to, there are a number of rock-cut Buddhist caves and temples at Junāgarh, mentioned by Hiuen Tsiang in the seventh century, and some fine Jain temples on Mount Girnār and the Shetrunja hills at Pālitāna. At Ghumli, a former capital of the Jethwas, there are extensive ruins.

Population. The Political Agency of Kāthiāwār has (1901) a total population of 2,329,196. In 1872, 1881, and 1891 the numbers were 2,318,642, 2,343,899, and 2,752,404. During the last decade there was a decrease of 423,208, due to the famine of 1899-1901.

Natives of Kāthiāwār are largely represented in Bombay City, where 45,000 were enumerated at the recent Census. Almost as many were found in Ahmadābād city. The more adventurous Musalmān traders in the coast towns travel in considerable numbers to South Africa and Natal, and the seafaring population, once notorious for piracy, now furnishes numerous lascars to ocean-going steamers. The last detected case of piracy from Kāthiāwār occurred as recently as 1903. The distribution of the population among the numerous States

[1] *Archaeological Survey of Western India*, vols. ii and viii.

of the Agency has been given above (pp. 341–5). There are 52 towns and 4,163[1] villages, with an average density of 112 persons per square mile. The principal towns are BHAUNAGAR, NAVĀNAGAR, JUNĀGARH, RĀJKOT, DHORĀJI, PORBANDAR, GONDAL, MORVI, MAHUVA, VERĀVAL, and WADHWĀN. Hindus form 81 per cent. of the total, Musalmāns 14 per cent., and Jains 5 per cent.

The most interesting caste is the Rājput, numbering 113,000, and including the ruling families of the majority of the States. The Kāthis, from whom the peninsula derives its name, number 21,700. Among castes of 100,000and over are Kunbīs (358,000), Kolīs (249,000), Brāhmans (158,000), traders, including Vānīs and Lohānas (135,000), and Dhers (116,000). Of the Brāhmans, more than half are of the Audich sub-caste (90,000); Modhs, Nāgars, and Srimālis are other subdivisions of this caste of local importance. The traders are mainly Lohānas (64,000). Ahīrs, an immigrant caste of shepherds who entered the peninsula at an early date and also spread eastward into Khāndesh, number 74,000. Among Musalmāns, the most numerous sections are the Memons (68,000), who are traders; Khojas (29,000), also traders; and Ghānchis, or oil-men (24,000).

Of the total population, 41·6 per cent. depend on agriculture; commerce supports 5·6 per cent., industry 27·6 per cent., and various employments 25·2 per cent.

Agriculture.

Kāthiāwār has the essential features of a prosperous agricultural country. The climate is, on the whole, temperate, the rainfall moderate, streams abound, ponds and wells are fairly numerous, and there is much variety in the texture, quality, and depth of soil. On the other hand, the peninsula is thinly peopled; cultivators take up more land than they can till, and the style of farming is slovenly. The soil is of two main classes, black or red, the red being considered the less valuable. Of the first class is the deep black soil known as *kāmpāl*, suitable for the growth of cotton, while the better kinds of red soil favour the production of irrigated wheat and barley. A saltish earth, impregnated with clay and impervious to water, is not uncommon.

Some of the richest tracts lie along the course of the Bhādar river, and at Mahuva and Lilia, where excellent fruit and vegetables are grown. Sugar-cane is grown with success in the same locality. In Sorath, Chorwād is noted for its betel-vines.

[1] Besides these there are 27 villages, which, being unpopulated at the time of the Census, were not returned.

Gondal cotton is famous. In the northern and eastern districts of Jhālawār much cotton is grown. Hālār in the west yields excellent *jowār*, *bājra*, wheat, and other grains, and Sorath in the south is rich in both cotton and grain. In Limbdi, and on the eastern coast of Kāthiāwār bordering the Gulf of Cambay, cotton, wheat, and other grain are produced from a rich silt which requires no manure. Turmeric and *mūg* are common crops.

The chief cultivating classes are: among Hindus, Kunbīs, Sathvāras, Rājputs, Ahīrs, Mers, and Kolīs; and among Musalmāns, Memons, Ghānchis, Bohrās, Sindīs, Jats, and Mianas. Of these the most expert are the Kunbīs.

During recent years considerable progress has been made in irrigation, by the construction of storage tanks wherever the natural features of the country render them possible. At least ten of these tanks with a systematic control of the water-supply have been constructed during the last ten years. Prominent among these are the Lālpuri tank at Rājkot, Alānsager at Jasadan, Paneli in Gondal, and Champa and Moldi tanks in the Chotila Thāna circle. The successive bad years have also been the cause of an increase in the number of wells for irrigation purposes.

The total cultivated area in 1903-4 was 8,074 square miles, distributed as follows: cotton (2,446), *bājra* (2,008), *jowār* (1,866), wheat (406), gram (178), *mūg* (19), *udīd* (16), and 'others' (1,138).

The numerous petty courts and their people form a large body of rich resident landholders, spending their rents on their estates; and the ministers, officials, and landholders, of various stations and wealth, contribute to impart a brisk vitality to the progress and general well-being of the country. A large proportion of the public business of Kāthiāwār is conducted by, and at the cost of, native Darbārs. Bhaunagar has taken the lead in the material development of her resources, and was the first State in the Bombay Presidency to construct a railway at her own expense and risk.

Domestic animals.

Horses, formerly of excellent repute, are bred in large quantities. The peninsula is suitable for the raising of stock, the central portion being famous as a breeding ground. Most of the States maintain stud farms. In 1903-4 nine of the States maintained 56 stallions, which covered 791 mares. Milch cows and buffaloes are reared in the Gīr, camels in the Rann, and asses in Hālār and Jhālawār. The buffaloes of the Gīr, as also the cows, are famed as good milkers and are sold

to dairymen in various parts of the Presidency, particularly in Bombay City. A good buffalo yields about 32 quarts of milk daily, and a good cow 12 quarts. Sheep are plentiful in some parts; their wool forming, together with cotton and grain, the chief article of export.

Forests. Besides the Gīr with its 1,500 square miles of forest, there are important wooded tracts in Kāthiāwār. In Vānkāner and the Panchāl lands have been set aside for the growth of timber, and in Bhaunagar, Morvi, Gondal, and Mānāvadar *babūl* plantations have been formed. Palms, mangoes, and casuarina have been specially planted and cared for in Bhaunagar; trunk and feeder roads are being gradually planted with trees along their entire length; and several minor estates and villages are paying attention to forest conservancy.

Minerals. Kāthiāwār abounds in minerals and is particularly rich in building stone. The principal metal is iron, which in former days was worked in Bardā and Khambhāliya districts. Near Porbandar a valuable description of building stone is extracted from the hills and sent to Bombay in large quantities. Pearls of good quality, but inferior in lustre to those of the Persian Gulf, are found in the Gulf of Cutch within Navānagar limits. A few are also found in Junāgarh and Bhaunagar near Bherai and Chānch. White coral of no market value is common. Red coral is sometimes found in small quantities at Māngrol and Sil. Bloodstone and agate are common near Tankāra in Morvi.

Trade and manufactures. The Kāthiāwār region is a wealthy one. The land, though not of extraordinary richness, is generally of fair quality and is amply watered. The cotton exported supplies one-sixth of the total amount of cotton shipped from Bombay to foreign countries, and a large import of bullion and grain is yearly received by Kāthiāwār as part of the price. Cotton cloth, sugar, and molasses are largely imported. The total value of the sea-borne trade in 1903–4 was 378½ lakhs: exports 197 lakhs, and imports 181½ lakhs. The exports of cotton alone were more than 126 lakhs in value, and of wool 5½ lakhs. The imports of grain vary according to the season. Railways have absorbed a great portion of the export trade from the smaller ports on the coast-line, and concentrated it at Wadhwān in the north-east and Bhaunagar in the south-east, while the import trade on the contrary is drawn towards the minor ports. Private enterprise has established three cotton-weaving mills and steam cotton-press factories, and there is a prosperous trade in timber. The chief handicrafts are gold and silver thread-making, weaving of

silk and brocades, the making of red powders, of fragrant oils, of perfumed sticks and powder, of rose and other essences, inlaying ivory, and carving sandal-wood.

In the matter of roads, great progress has been made of late years. Where there was not a single mile of road in 1865, there are now more than 600 miles, for the most part bridged and metalled. Two great lines of trunk roads intersect the peninsula, one proceeding from Wadhwān to Junāgarh and Verāval, and the other from Bhaunagar to Jodiya, crossing at Rājkot, the head-quarters of the Agency. The Junāgarh line has a branch bifurcating at Jetpur towards Porbandar, while the Jodiya line has a similar branch going towards Navānagar. These main lines have various feeders to connect the capitals and other important towns of the numerous States. Communications. Roads and railways.

Since 1880 communication has been improved by the introduction of railways, principally at the cost of the States. The first entry of the railway into Kāthiāwār took place in 1872, under the auspices of the Bombay, Baroda, and Central India Railway Company. The terminus was at Wadhwān, and the length of the line within Kāthiāwār limits 39½ miles. A line constructed at a cost of 96 lakhs, shared by Bhaunagar and Gondal in the proportion of two-thirds and one-third, was opened in 1880. The total length of this line was 192 miles. In 1886 Junāgarh constructed at a cost of 37 lakhs a line 69 miles long, passing from Jetalsar through the capital to the port of Verāval. The Wadhwān-Morvi Railway was opened in 1887 and the extension to Rājkot completed in 1889. The Jetalsar-Rājkot Railway was opened in 1893.

The total length of railways in Kāthiāwār in 1904 was 557·09 miles, of different gauges, namely:—

Bhavnagar-Gondal-Junāgarh-Porbandar Railway	334·19
Jetalsar-Rājkot Railway	46·21
Jāmnagar Railway	54·22
Dhrāngadhra Railway	20·83
Rājputāna-Mālwā Railway	32·00
Morvi (metre-gauge) Railway	73·94
Morvi (2 feet 6 inches) Railway	15·70
Total	577·09

The conversion from the standard gauge to the metre gauge of the section between Viramgām and Wadhwān since December, 1902, has given the Rājputāna-Mālwā Railway access to Wadhwān junction, and Kāthiāwār thus possesses through connexion with the whole of Upper India. The gross earnings of the (1) Bhavnagar-Gondal-Junāgarh-Porbandar, (2) Jetalsar-

Rājkot, (3) Jāmnagar, and (4) Dhrāngadhra railways in 1904 amounted to 22·3 lakhs, and the working expenses to 10·5 lakhs. The gross earnings of the Morvi Railway amounted to nearly 3·5 lakhs, and the working expenses to 1·6 lakhs, representing a return of 7·71 per cent. on the capital cost.

Post offices. Besides 248 British post offices, private internal postal arrangements are made by the State of Junāgarh. People from villages where there is no British post office or postal box send their letters through the State post, and are required to affix stamps issued by the State.

Famine. The first famine of which records are available occurred in 1559. Since then the most notable famines have occurred in 1632, in 1719, in 1732, in 1747, and in 1791. The famine of 1877–9 was severe and widespread. In 1899–1902 the peninsula again suffered severely from famine. Relief measures were commenced in October, 1899, and closed in October, 1902. The highest number in receipt of relief exceeded 300,000 in May, 1900. More than 15 lakhs was spent on relief. The States contracted loans, partly from Government (65 lakhs) and partly in the open market (41 lakhs), amounting to 106 lakhs to meet the cost of this famine. Of this sum 36 lakhs was borrowed by Bhaunagar, 16 lakhs by Navānagar, and 7½ lakhs by Dhrāngadhra. The mortality was heavy, the Agency losing 15·37 per cent. of its population from this and other causes.

The year 1814–5 was called the 'rat year,' from the famine produced by the ravages of these animals. Captain Le Grand Jacob remarked of this pest:—

> 'They appear suddenly in dense masses past all counting, as if springing from the earth, about the harvest season. Nothing can stop them . . . fires, ditches, have been tried in vain; they move along, a mighty host, eating up all that comes in their way. All at once they vanish as if by magic, and for years not one is to be seen; they are about double the size of a common rat, and are of a reddish sandy colour.'

A similar swarm took place after the recent famine.

Administration. Since 1822 political authority in Kāthiāwār has been vested in the Political Agent subordinate to the Government of Bombay. In 1903 the designations of the Political Agent and his Assistants were changed to those of Agent to the Governor and Political Agents of the *prānts*.

Before 1863, except for the criminal court of the Agent to the Governor, established in 1831, to aid the Darbārs of the several States in the trial of heinous crimes, interference with

the judicial administration of the territories was diplomatic, not magisterial; and the criminal jurisdiction of the first and second-class chiefs alone was defined. In 1863, however, the country underwent an important change. The jurisdiction of all the chiefs was classified and defined: that of chiefs of the first and second classes was made plenary; that of lesser chiefs was graded in a diminishing scale. Four Political Agents of the *prānts*, resident in the four divisions of Kāthiāwār, now exercise residuary jurisdiction with large civil and criminal powers. Each Political Agent of a *prānt* has a deputy who resides at the head-quarters of the *prānt* or division, and exercises subordinate civil and criminal powers. Serious criminal cases are committed by the deputies to the court of the Agent to the Governor, to whom also civil and criminal appeals lie. The Agent to the Governor is aided in this work by an officer known as the Political Agent and Judicial Assistant, who is usually a member of the Indian Civil Service. Appeals from his decisions lie direct to the Governor of Bombay in Council. An officer styled the Superintendent of Managed Estates, who is *ex officio* an Assistant Political Agent, and two Deputy-Assistants also help the Agent.

In each division are several subdivisional *thānadārs*, holding petty magisterial powers over a circle of villages contiguous to their stations or *thānas*. These *thānadārs* administer 146 *tālukas* out of the 193 territorial divisions of Kāthiāwār; they possess certain powers of general administration as well as judicial authority. But as the larger principalities occupy more than 15,000 square miles of the total area of 20,882 square miles, the Agency through its Assistants, Deputy-Assistants, and *thānadārs* cannot be called upon to administer more than one-fourth of the entire area. There are 12 *thānas* in the peninsula. The *tālukdārs* are poor, ignorant, and in debt, and have only the semblance of authority. Inter-*tālukdār* relations are characterized by petty squabbles, small jealousies, and endless subdivision of estates.

The law administered by the *dārbāri* tribunals of the State is the customary law: namely, the Hindu and Muhammadan religious law as modified by local or tribal usage. The larger States have procedure and penal codes based on those in use in British India. To meet a particular class of land disputes, however, a special court was established in 1873. This was the Rājasthānik Court, constituted with the assent and at the cost of the chiefs. It decided, under the presidency of a British officer, all disputes as to *girās* or hereditary estates,

between the chiefs and the *bhāyāds* and *girāsias*, who are for the most part the kinsmen of the chiefs or the descendants of earlier holders who had been deprived of their estates. It surveyed and mapped out the *girāsia's* estate, fixed his miscellaneous dues, and defined his relation to his chief by laying down the extent of his obligations. The court was originally established for three years; but it was continued for a succession of short periods, and was eventually abolished on April 1, 1899. Since its establishment the peace of Kāthiāwār has seldom been broken by the more unruly members of the chiefs' families; but a real or fancied grievance may still produce a body of outlaws; and as recently as 1892 a band of these *bahārwattias* was not captured until they had caused the death of the British officer in charge of the pursuing troops. At the present time disputes between the first four classes of chiefs are usually referred to the State courts, and are dealt with by the Agent to the Governor in appeal. Similar disputes between the *tālukdārs* of other classes are decided by the Judicial Assistant, subject to the control of the Agent to the Governor, according to rules published in 1898.

Land revenue administration.

As each tribe of Rājputs invaded the peninsula, its chiefs bestowed on their relations portions of the land they had won. This share was named *kapāl girās*, and passed to the descendants of the original grantees. The more enterprising *girāsias* continued to acquire fresh lands from their neighbours, until they found themselves sufficiently strong to set up as independent rulers. Others, less enterprising, surrendered the greater portion of the land to a neighbouring chief in return for protection, and fell into the position of *mulgirāsias* or 'original sharers.' When a *girāsia* succeeded in gaining his independence he became a *tālukdār*, and assumed the title of Thākur, Rāval, Rānā, or Rājā. As he rose in the social scale, the landed proprietor became anxious to leave his possessions intact to his eldest son; at the same time the custom of the country compelled him to set aside a portion of his estates for each of his younger sons, and these in turn became *girāsias* owing submission to the head of the family, but otherwise independent. Thus in Kāthiāwār landed property has been minutely subdivided, and the process still continues, so that some estates not larger than a single village have upwards of a hundred shareholders. As a rule, the revenue control of these estates has been left to the shareholders, except during minority, &c. In addition to the landed estates held by *tālukdārs* and *girāsias*, many villages or portions of villages are held

hereditarily as religious and service grants. Another large class of proprietors are *jivaidārs*, or holders of estates as maintenance or on service tenure. They have not the position or privileges of *girāsias*, and possess neither civil nor criminal jurisdiction. Some of them are life tenants. Common forms of service tenure are lands held by village headmen, watchmen, or scavengers, or by tribes such as the Mers who pay a hearth-tax and a plough-tax for cultivation, though in some cases holding rent free. The *tālukdārs* of Kāthiāwār have absolute power over property in their private or *khālsa* land. The landlord's rent or *rāj bhāg* is a fixed share of the produce. In practice this share is supplemented by numerous petty cesses, some of which are taken by the proprietor, while others are devoted to village expenses.

During the last thirty years considerable improvements have been introduced into the revenue system. Previously whole subdivisions were farmed to the highest bidders, who in turn sublet villages or shares of villages. The farming system has now been almost completely abandoned, and a scientific revenue survey has been introduced in nearly all parts of the peninsula.

In Kāthiāwār the organization of the village community has still considerable vitality. The prevalence of a system of revenue collection in kind imposes a special demand on the watchfulness of the headman and his subordinates. Even the smallest villages have their *pātel*, *havildār*, and *pagi*, who, like the priest, carpenter, tailor, and scavenger, are remunerated for their services by payment in kind. Under recent arrangements, the village police under the Agency *thāna* circles are paid in cash and not in kind.

Revenue and finance.

The table given on pages 341–5 shows that in 1903–4 the total revenue of the Agency was estimated at 194 lakhs, while the tribute amounted to nearly 11 lakhs, about 7 lakhs payable to the British, 2·9 lakhs to the Gaikwār, and Rs. 92,400 to Junāgarh, compared with 165½ lakhs and 11 lakhs respectively in 1880. Of the 193 States, 12 pay no tribute, 105 are tributary to the British Government, and 79 to the Gaikwār of Baroda, while 134 pay tribute also to the Nawāb of Junāgarh. As the financial accounts of the States, except those temporarily under management, are never submitted to the Agency, the revenue entered in the table above referred to must be considered only approximately correct. A large share of the revenue is never brought to book in the State accounts, being credited to the private income of the chief or of the members

of his family. Villages are assigned in maintenance or alienated, and taxes are farmed and their proceeds carried to some private account. The greater part of the revenue in every State is derived from the land, the general rule being to take a fixed share of the crops, supplemented by cash cesses, the total averaging from one-third to one-half of the crops. The States which possess a sea-board levy an export duty on all field produce leaving the State limits by any land route, in order to turn trade to their own ports. The maritime States not only levy import and export duties, but have also a monopoly of the manufacture of salt, a branch of revenue of increasing importance. All jurisdictional States also retain the monopoly of the sale of opium, and are entitled to two-thirds of the value of all smuggled opium seized within their territories. Other items of revenue are house taxes levied on artisans and shopkeepers, and taxes on labourers, shepherds, &c. Stamp duties and fees are levied on various judicial processes. Under the authority of Government, an improvement cess of two annas per acre has been imposed on subordinate landholders for the last thirty years. There is no regular classification of land. Assessment is levied chiefly in kind, but it works out at about Rs. 2 to Rs. 2·8 per acre for 'dry crops' and Rs. 5 to Rs. 6 for irrigated crops.

Currency. The British rupee is current throughout the peninsula. There is a local mint at Junāgarh, of which the coins are current in that State alone. The silver coins are *koris* and half-*koris*, the copper coins being known as *dhinglas*, *dokdas*, and *trambia*. The Bhaunagar mint was closed in 1840 under an arrangement with the Bombay Government.

Municipal and local funds. Municipal taxes are levied in many of the large towns. Since 1879 a certain amount has been contributed by each State and landed proprietor in Kāthiāwār, and credited to a general Local fund administered by the Agent to the Governor. All expenses connected with the improvements of the Agency are met from this fund, which has an income of 1·8 lakhs, with a balance in 1904 of 5 lakhs.

Army. Imperial Service troops are maintained at Bhaunagar, Junāgarh, and Jāmnagar, which each equip a small force of cavalry. The British troops at Rājkot consisted in 1905 of a regiment of Native infantry.

Police. There is no general police force in Kāthiāwār. The chiefs are bound by stipulation to preserve order and indemnify losses through crime committed in their territory. In 1903–4 the Agency police, which is employed at a cost of 2·4 lakhs in

thānas and civil stations, numbered 998 men; while, so far as information can be obtained, the several States maintained a stipendiary police force aggregating 5,378 men, at a cost of 7·7 lakhs. In that year 6,114 offences were reported and 7,479 persons were arrested, of whom 4,218 were convicted and 2,820 acquitted. Conviction is generally sought through the agency of an informer. The daily average of prisoners in the Rājkot jail was 103. At the present time life and property are as safe in Kāthiāwār as in the Districts of British India.

Of the total population, 9·7 per cent. (17·7 males and 1·3 females) could read and write in 1901. Education has made rapid strides of late years. In 1858 there were 59 schools and 1,909 pupils, increasing in 1881 to 599 schools with 33,000 pupils; in 1891 the numbers further rose to 939 schools and 59,804 pupils. In 1903–4 the number of institutions, including 224 private schools, was 1,200, attended by 80,041 pupils, of whom 10,108 were girls. These include 2 Arts colleges, 11 high schools (including the Rājkumār College and the Gondal Girāsia School), 42 middle schools (including the Tālukdāri Girāsia School), and 2 training schools. At the Rājkumār College and the Girāsia Schools the advantages of a liberal education are enjoyed by many of the chiefs during their minority. The total amount spent on education in 1903–4, including the amount spent on the Rājkumār College (Rs. 45,000) and the Girāsia Schools (Rs. 33,000), was 8·3 lakhs, of which Provincial funds contributed 0·4 per cent., the revenue of the States 78·3 per cent., and other sources 2·7 per cent., while 18·6 per cent. was recovered as fees. Education.

There are 124 hospitals and dispensaries in Kāthiāwār. The patients treated at these institutions in 1903–4 numbered 739,000, of whom 15,813 were in-patients. Nearly 54,000 persons were vaccinated in the same year. Medical.

Gohelwār (*Gohilwād*).—*Prānt* or division of Kāthiāwār, Bombay. It takes its name from the Gohel Rājputs who own the greater part, and includes, among others, the chiefships of BHAUNAGAR and PALITĀNA. It lies along the Gulf of Cambay, with an area of 4,210 square miles. The total population in 1901 was 581,079. The total revenue in 1903–4 amounted to Rs. 55,27,787.

Hālār (*Hāllāwār*).—*Prānt* or division of Kāthiāwār, Bombay. It takes its name from the Jāreja Hālla Rājputs, and includes, among others, the chiefships of NAVĀNAGAR, MORVI, GONDAL, WĀNKANER, DHROL, and RĀJKOT. The limits of

the tract, which measures 7,477 square miles, are not strictly defined. It lies in the north-west of the peninsula, and embraces the level tract between the Gulf of Cutch, the *tāluka* of Okhāmandal (Baroda territory), the Bardā hills, and the Arabian Sea. Locally this area is known as Barāri. The total population in 1901 was 764,992. The total revenue in 1903-4 amounted to Rs. 60,84,835.

Jhālawār.—*Prānt* or division of Kāthiāwār, Bombay. It takes its name from the Jhāla Rājputs, who own the principal estates, and includes the States of DHRĀNGADHRA, the chief of which is the recognized head of the Jhāla clan, LIMBDI, WADHWĀN, and other minor States. The area is about 3,978 square miles. The total population in 1901 was 305,138, the density being 76 persons per square mile. The total revenue in 1903-4 amounted to Rs. 23,59,580.

Sorath.—*Prānt* or division of Kāthiāwār, Bombay, situated in the south-west corner of the peninsula, and including, among others, the chiefships of JUNĀGARH, PORBANDAR, and JĀFARĀBĀD. The area is 5,217 square miles, and the total population in 1901 was 677,987. The total revenue in 1903-4 amounted to Rs. 53,99,349.

Boundaries, configuration, &c.

Junāgarh State.—Native State in the Kāthiāwār Political Agency, Bombay, lying between 20° 44′ and 21° 53′ N. and 70° and 72° E., with an area of 3,284 square miles. It is bounded on the north by Barda and Hālār, on the east by Gohelwār, and on the west and south by the Arabian Sea. The only elevation rising above the general level of the plains is the Girnār group of hills, the highest peak of which, Gorakhnāth, is about 3,666 feet above sea-level. All the hills are volcanic and consist of trap and basalt, but the summit of the Girnār hill is composed of syenite. The principal rivers are the Bhādar and the Saraswatī. The Bhādar is the largest river in the State, and much irrigation is carried on along its banks and those of its tributaries. The Saraswatī, or sacred river of Prabhās Pātan, is famous in the legends of the Hindus. There is also a densely wooded tract called the Gīr, hilly in some parts, but in others so low as to be liable to floods during the rainy season. The climate is fairly healthy; but, except on the Girnār hill, the heat is excessive from the beginning of April to the middle of July. The annual rainfall averages 40 to 50 inches.

History.

Until 1872, when it was conquered by Sultān Mahmūd Begara of Ahmadābād, Junāgarh was a Rājput State, ruled by chiefs of the Chudāsama tribe. During the reign of the

emperor Akbar it became a dependency of Delhi, under the immediate authority of the Mughal viceroy of Gujarāt. About 1735, when the representative of the Mughals had lost his authority in Gujarāt, Sher Khān Bābi, a soldier of fortune, expelled the Mughal governor, and established his own rule. Sher Khān's son Salābat Khān appointed his heir chief of Junāgarh, assigning to his younger sons the lands of Bāntwa. The ruler of Junāgarh first entered into engagements with the British Government in 1807. The chief bears the title of Nawāb, and is entitled to a salute of 11 guns. The present chief is tenth in succession from Sher Khān Bābi, the founder of the family. He holds a *sanad* guaranteeing any succession according to Muhammadan law, and the succession follows the rule of primogeniture. He was created a K.C.S.I. in 1899.

The population at the last four enumerations was: (1872) 380,921, (1881) 337,499, (1891) 484,190, and (1901) 395,428, dwelling in 7 towns and 811 villages. The decrease in the last decade (19 per cent.) was due to the famine of 1899–1900. Distributed according to religion, Hindus number 301,773; Muhammadans, 85,684; and Jains, 7,842. The capital is JUNĀGARH TOWN. Places of interest are the sacred mountain of GIRNĀR, crowned with Jain temples; the port of VERĀVAL; and the ruined temple of SOMNĀTH. Population.

The soil is generally black, with scattered tracts of the lighter kind. Irrigation is mainly from wells worked with the Persian wheel and the leathern bag. In 1903–4 the area of cultivated land was 859 square miles, of which 108 square miles were irrigated. Four stallions are maintained for horse-breeding. Agricultural products comprise cotton, shipped in considerable quantities from the port of Verāval to Bombay, wheat, the ordinary varieties of millet and pulse, oilseeds, and sugar-cane of both the indigenous and Mauritius varieties. The Gīr district contains about 1,200 square miles of good forest. The principal trees are teak, black-wood, *jambu*, and *babūl*, all of which are used for building purposes locally and are a source of revenue to the State. The forest, however, is not able to meet all the demands for building timber of the whole peninsula, as large quantities are imported by sea from the Malabar coast. Stone of good quality is obtainable for building. Agriculture, &c.

The coast-line is well supplied with fair-weather harbours, suited for native craft, the chief being Verāval, Nawābandar, Sutrāpāra, and Māngrol. These ports supply grain, timber, and other necessaries to the greater part of Sorath. The State Trade and manufactures.

has its own postal arrangements. The Bhavnagar-Gondal-Junāgarh-Porbandar Railway passes through the territory. The main roads are from Junāgarh town towards Jetpur and Dhorājī, and from Junāgarh to Verāval. The ordinary country tracks serve in the fair season for the passage of carts, pack-bullocks, and horses. Oil and coarse cotton cloth are the principal manufactures.

Administration, &c. Junāgarh ranks as a first-class State in Kāthiāwār. The chief has power of life and death over his own people, the trial of British subjects for capital offences requiring the previous permission of the Agent to the Governor. Though himself paying a tribute of Rs. 65,604 to the Gaikwār of Baroda and to the British Government, the Nawāb of Junāgarh receives contributions called *zortalbi*, amounting to Rs. 92,421, from a large number of chiefs in Kāthiāwār. This levy, which is collected and paid to the Nawāb through British officers of the Kāthiāwār Agency, is a relic of the days of Muhammadan supremacy. The gross revenue in 1903–4 was about 26¼ lakhs, chiefly derived from land (19 lakhs). Junāgarh has a mint issuing coin which is current only in the State. The British rupee is also current. Revenue survey operations are in progress in the State, the total area surveyed up to 1904 being 2,612 square miles. The chief has entered into engagements to prohibit *satī*, and to exempt from duty vessels entering his ports through stress of weather. Of the eighteen municipalities, the largest is JUNĀGARH, with an income of about Rs. 18,000. The State maintains a military force of 161 men; of these 99 are Imperial Service Lancers, and the remaining 62 are also mounted men. The total strength of the police is 1,760 men, of whom 144 are mounted. There are 9 jails, with a daily average of 51 prisoners in 1903–4. Besides one Arts College attended by 181 students, the State contains one high school and 124 other schools, with 8,800 pupils. The State maintains 21 medical institutions, including one hospital, which afforded relief to 121,000 persons in 1903–4. There is also a leper asylum containing 61 inmates. In the same year nearly 10,000 persons were vaccinated.

Navānagar State.—Native State in the Kāthiāwār Political Agency, Bombay, lying between 21° 44′ and 22° 58′ N. and 69° 20′ and 70° 33′ E., on the southern shore of the Gulf of Cutch, with an area of 3,791 square miles. It is bounded on the north by the Gulf and the Rann of Cutch; on the east by the States of Morvi, Rājkot, Dhrol, and Gondal; on the south by the Sorath division of Kāthiāwār; and on the

west by the Okha Rann and the Arabian Sea. It is generally flat, but about two-thirds of the Bardā hills are contained within its limits. Mount Venu, the highest point of the Bardā hills, is 2,057 feet above sea-level. The principal rivers are the Bhādar, the Vartu, the Aji, and the Und. The harbours of Jodiya Salāya and Navānagar or Bedi are situated within the State. Mangrove swamps line the shores of the Gulf, affording large supplies of firewood and pasture. The *Aloe littorale* grows wild; its stalks when cooked are supposed to taste like asparagus. Formerly the Navānagar State was infested by lions, which were especially numerous in the Bardā and Alech hills. In 1860, however, when cannon were frequently fired in pursuit of the rebel Vāghers, the lions fled from the hills, and are now found only in the Gīr forest and (rarely) in the Girnār mountain near Junāgarh. Leopards, the hunting cheetah, and *nīlgai* are common. The climate, especially on the Gulf of Cutch, along which the territory extends, is good. The annual rainfall averages between 20 and 30 inches. Physical aspects.

The Jām of Navānagar is a Jādeja Rājput by caste, and belongs to the same family as the Rao of Cutch. The Jādejas entered Kāthiāwār from Cutch, and dispossessed the ancient family of Jethwas (probably a branch of Jāts) then established at Ghumli. Subsequently, about 1535-7, Jām Rāwal invaded Sorath and conquered the Jodiya, Amran, and Khambhāliya *parganas*, and in 1540 founded the town of Navānagar. He prosecuted his success with the assistance of his brothers Hardoljī, Rāvojī, and Modjī. Hardoljī, the founder of the house of Dhrol, conquered that *pargana* from Damal Chāvada and retained it. Rājkot also is an offshoot of this State. The Jām in 1807 executed the usual engagements to pay tribute, to keep order in his territory, and not to encroach on his neighbours. The Jādeja tribe was, at the beginning of the last century, notorious for the systematic murder of female children, to avoid the difficulty and expense of providing them with husbands. Engagements were entered into by the Jādeja chiefs in 1812 to abandon this custom; and, under the constant watchfulness of the British officers, it is believed to be now extinct. The Jām of Navānagar is entitled to a salute of 11 guns. He holds a *sanad* authorizing adoption, and succession follows the rule of primogeniture. The present Jām is the well-known cricketer, Ranjītsinghjī. History.

The population at the last four enumerations was: (1872) 290,847, (1881) 316,147, (1891) 379,611, and (1901) 336,779. Population.

The decrease in the last decade (11 per cent.) was due to the famine of 1899–1900. Hindus number 262,880; Muhammadans, 52,684; and Jains, 21,006. There are 3 towns and 666 villages, the capital of the State being NAVĀNAGAR TOWN.

Agriculture. The land produces both garden and 'dry crops.' Irrigation is provided by draw-wells, by artificial tanks, and by aqueducts from rivers. The total cultivable area is 1,960 square miles, 1,717 square miles being under crop in 1903–4, of which 117 square miles were irrigated. Survey operations are in progress in the State. The principal products are grain and cotton. *Jowār*, *bājra*, wheat, and gram are the staple food-crops. Wheat is produced without irrigation. At Rāwal about 3,000 acres are irrigated for rice. Cotton, sugar-cane, and tobacco are raised in small quantities. A reservoir for the drinking supply of the capital and for purposes of irrigation has been built 8 miles south of Navānagar town. The only forests of any importance are those in the northern portion of the Bardā hills.

Trade and manufactures. Marble of different qualities is found in the Kandorna and Bhanwār *tālukas*. Copper occurs in the Khambhāliya *pargana*, but does not pay working expenses. A small pearl fishery lies off the coast on the southern shore of the Gulf. Cloth and silk are the chief manufactures. A considerable number of people are employed as dyers. The dyes applied to the local fabrics are much admired, and their excellence is traditionally attributed to the quality of the water of the Rangmati river, which flows by Navānagar town. The railway has had no perceptible effect on the trade of Navānagar ports, from which the grain and cotton grown in the State are still shipped. A trade in isinglass and shagreen is growing up, and the fisheries supply sole, pomphlet, and whitebait. The State owns 299 vessels, and the coast is provided with 4 lighthouses. The total value of imports by sea in 1903–4 was 27 lakhs, and of exports 15 lakhs. There is land communication by carts, pack-bullocks, horses, and camels; and the capital is connected with Rājkot by a metre-gauge railway 54·22 miles in length, owned by the State.

Administration, &c. Navānagar ranks as one of the first-class States in Kāthiāwār. The chief has power to try all offences, the trial of British subjects for capital offences, however, requiring the previous permission of the Agent to the Governor. The estimated gross revenue is 25 lakhs, derived chiefly from land (19 lakhs) and customs (1⅛ lakhs). Tribute of Rs. 1,20,093 is paid jointly to the British Government, the Gaikwār of Baroda,

and the Nawāb of Junāgarh. No transit dues are levied. The State has one municipality, with an income (1903–4) of Rs. 33,000. It maintains a squadron of Imperial Service Lancers, numbering 145, and a subordinate force of 211 men, of whom 26 are mounted. The police force numbers 876; and there are 8 jails and 4 lock-ups, with a daily average in 1903–4 of 208 prisoners. The State contained in the same year 122 schools with 11,771 pupils, and 20 medical institutions, besides 2 veterinary dispensaries treating 1,400 animals. In the medical institutions 85,000 patients were treated in 1903–4; and the number of persons vaccinated in the same year was 9,600.

Bhaunagar State (*Bhāvnagar*).—State in the Kāthiāwār Political Agency, Bombay, lying between 20° and 22° 18′ N. and 71° 15′ and 72° 18′ E., with an area of 2,860 square miles. It is bounded on the north by Rānpur, Ahmadābād District, and the Pānchāl; on the east by the Gulf of Cambay and the Dhandhuka *tāluka* of Ahmadābād; on the south by the Arabian Sea; and on the west by Sorath and Hālār.

Physical aspects. The country has a very varied aspect, being in some parts a mere salt flat, in others a rich plain of black soil, while portions of the Sihor range and the hills in the Kundla subdivision lend a mountainous appearance to other parts. The principal ranges of hills are those of Sihor, Khokra, Und, the Bābriādhar, and the outlying hills of the Gīr on the western border, the highest hill being Mitiāla (over 1,000 feet). They are all volcanic, and consist of trap and basalt, piercing, and in some places elevating, a course of sandy limestone. In places laterite of good quality for building and a conglomerate abounding in fossils are found. The principal rivers are the Shetrunji, Bagad, and Mālan, the waters of which are used for irrigation. The State contains a fine artificial lake about 5 miles in circumference near the capital, formed by an embankment across the bed of the Gadechi river. The climate is good on the sea-coast, but hot and dry inland. The annual rainfall averages 25 inches.

History. The Gohel Rājputs, to which tribe the chief of Bhaunagar belongs, are said to have settled in the country about the year 1260 under Sajakjī, from whose three sons—Rānojī, Sāranjī, and Shāhjī—are descended respectively the chiefs of Bhaunagar, Lāthi, and Pālitāna. The chief of Vala is also an offshoot of the same family. The town of Bhaunagar was founded by Bhausinghjī in 1723. Bhausinghjī, his son Rāwal Akherājjī, and his grandson Wakhat Singh, took pains

to improve the trade of their country and to destroy the pirates who infested the neighbouring seas. An intimate connexion was thus formed between Bhaunagar and the Bombay Government. In 1759 the British acquired the right to a fourth share in the customs of the port of Bhaunagar from the Sīdī of Surat, to whom it had been granted by Bhausinghjī as the price of protection from the Nawāb of Cambay. In 1771 Rāwal Akherājjī assisted the Bombay Government in reducing Talāja and Mahuva, which were occupied by piratical Kolīs. After the conquest of Talāja, the fort was offered to Akherājjī by the Bombay Government; but he refused to accept it, and it was made over to the Nawāb of Cambay. Wakhat Singh, however, after his accession in 1772, dispossessed the Nawāb of the fort, which, under an engagement arranged by the British Government in 1773, he was allowed to retain on paying a sum of Rs. 75,000. The boundaries of the Bhaunagar State were largely increased by various other acquisitions made by Wakhat Singh previous to the settlement of Kāthiāwār.

When Gujarāt and Kāthiāwār were divided between the Peshwā and the Gaikwār, the western and larger portion of the Bhaunagar possessions were included in the Gaikwār's share; while the eastern and smaller portion, including Bhaunagar itself and the original estates of the family in Sihor, fell to the Peshwā, and formed part of the districts of Dhandhuka and Gogha, which the Peshwā ceded to the British Government under the Treaty of Bassein. At the time of the settlement of Kāthiāwār, therefore, part of the Bhaunagar possessions had already become British territory, while part remained under the Gaikwār. The revenue (*jamā*) demanded from the British portion was Rs. 11,650, and that payable to the Gaikwār was fixed at Rs. 74,500. But as it was expedient to consolidate in the hands of the British Government the various claims over Bhaunagar, an agreement was made with the Thākur's consent for the transfer of the Gaikwār's tribute in Bhaunagar to the British Government, which was accordingly included in the cessions made in 1807 by the Gaikwār for the support of a contingent force. In 1840 the British abolished the mint at Bhaunagar, where copper money had been previously coined. As compensation for this, a sum of Rs. 2,800 a year was granted to the Thākur. A further sum of Rs. 4,000 was given to him, in consideration of his resigning all claims to a share in the land or sea customs of Gogha. The Thākur also subscribed the usual engagements, exempt-

ing from duty vessels putting into his port under stress of weather.

After the cession of Dhandhuka and Gogha, the chief of Bhaunagar was tacitly permitted to exercise the same powers as before in the portion of his land which fell within those districts. But in consequence of a serious abuse of power, the estates were in 1816 placed under the jurisdiction of the British courts. The Thākur never ceased to complain of this change; and eventually, after full investigation, an agreement was concluded, by which the Thākur's revenue in his British estates was fixed at Rs. 52,000 in perpetuity. In 1866 certain villages in this portion of the State were removed from the jurisdiction of the revenue, civil, and criminal courts of the Bombay Presidency, and transferred to the supervision of the Agent to the Governor in Kāthiāwār. In 1873 the Bhaunagar State made an agreement with the British Government for the construction of a telegraph line between Bhaunagar and Dholera.

The Thākur Sāhib of Bhaunagar is entitled to a salute of 11 guns, and was created a K.C.S.I. in 1904. He has received a *sanad* authorizing adoption, and the succession follows the rule of primogeniture.

Population.

The population of Bhaunagar at the last four enumerations was: (1872) 428,500, (1881) 400,323, (1891) 467,282, and (1901) 412,664, showing a decrease of 12 per cent. during the last decade owing to the famine of 1899–1900. The density of population is 144 persons per square mile. In 1901 Hindus numbered 350,886; Musalmāns, 40,323; and Jains, 20,761. The State contains 11 towns and 655 villages. The capital is BHAUNAGAR TOWN.

Agriculture, &c.

More than one-half of the total area consists of *regar* or black cotton soil, the remainder being light and sandy. Of the total cultivable area of 1,092 square miles, 983 were cultivated in 1903–4, of which 108 square miles were irrigated. Water is obtained from wells and rivers. Two experimental plantations, containing 44,000 trees of various kinds, are maintained at Mahuva and Sihor. The chief products are grain, cotton, and salt; and the chief manufactures are oil, copper and brass vessels, and cloth. The State contains 11 cotton-presses, 9 ginning factories, and one spinning and weaving mill. The quantity of cotton produced is very considerable, and forms one of the chief sources of wealth of the State. The exports from its various ports in 1903–4 were returned at a total value of 130 lakhs; the imports at 91 lakhs. The only

important forests are the Sihor forests, chiefly of thorny acacias, with a few tamarind and *nīm* trees. Horse-breeding is carried on with ten stallions, and mule-breeding with one Italian donkey stallion. At the veterinary hospital 1,211 animals were treated in 1903-4. Roads have been constructed from Bhaunagar to Vartej and Gogha, and to Dhasa. About 120 miles of the Bhavnagar-Gondal Railway run through the State, the net earnings since the line was opened having been 11 lakhs in excess of capital outlay. The chief has proposed to construct a metre-gauge line between Rānpur and Dholka via Dhandhuka.

Administration, &c. Bhaunagar ranks as a first-class State in Kāthiāwār. The chief exercises powers of life and death over all persons, the trial of British subjects for capital offences requiring the previous permission of the Agent to the Governor; and he pays a tribute of 1½ lakhs jointly to the British Government, the Gaikwār, and the Nawāb of Junāgarh. The revenue of the State in 1903-4 was 31 lakhs, excluding the earnings of the Bhavnagar Railway, which amounted to 8 lakhs. The expenditure was 35 lakhs, of which more than 4 lakhs represents expenditure on railways. The State does not levy transit dues. A revenue survey is being carried out in 161 villages. A State savings bank was established in 1902, which has a current deposit of more than 2 lakhs, and which lent and recovered 4 lakhs in 1903-4. There are ten municipalities, the largest of which is BHAUNAGAR TOWN, with a total income of Rs. 47,000 in 1903-4. The State maintains a regiment of Imperial Service Lancers, 256 strong, 51 cavalry, and 285 infantry, as well as a police force of 551, of whom 47 are mounted. Including an Arts college attended by 74 students and a high school, there were in 1903-4 148 educational establishments, attended by 12,462 pupils, of whom 2,311 were girls. Besides these, indigenous schools contain 2,166 pupils. The State has founded 57 scholarships of the aggregate monthly value of Rs. 457. The two hospitals, one of which is for plague patients, and 17 dispensaries in the State were attended in 1903-4 by 125,898 patients, of whom 1,103 were in-patients. In the same year 7,000 persons were vaccinated.

Porbandar State.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 14′ and 21° 56′ N. and 69° 28′ and 70° E., with an area of 636 square miles. It is situated in the west of the peninsula of Kāthiāwār, and consists of a strip along the shore of the Arabian Sea, nowhere more than 24 miles broad.

The Porbandar State may be described roughly as a plain sloping from the Bardā hills to the sea, drained by many rivers, the largest of which—the Bhādar, Sorti, Vartu, Minsār, and Ojat—contain water throughout the year. Towards the coast lie tracts of marsh land called *gher*, formed by the rainfall. On some of these, which are penetrated by salt water, only grass and reeds can flourish; but on the rest, rice, gram, *udid*, *mūg*, and other crops are grown. The largest *gher* is the Modhwāra, about 6 miles long by 4 miles broad, connected with the sea by the Kindari creek. This marsh, though fed by no large stream, receives all the drainage of the Bardā hills. When it fills during the rainy season, the villagers dig away the sand with which the sea annually closes the mouth of the creek, to let the water flow into the sea, while the sea enters the marsh during very high tides. The Gangājal is a large fresh-water marsh situated not far from the Kindari creek, about 2 miles in circumference, but unless the rains are heavy does not hold water for more than eight months in the year. The climate is healthy; the annual rainfall averages 25 to 30 inches. Physical aspects.

The chief is a Hindu of the Jethwa clan of Rājputs and belongs to one of the oldest races in Western India, whose advent is approximately set down at from A. D. 900 to 1000. They held Bardā and occupied much of the adjacent coast region of Hālār. After the capture and sack of Ghumli, the Jethwas retired to Rānpur, where they remained for many years, but were finally driven to Chhāya. While there they acquired Porbandar and Navi from the Mughal government, and reconquered much of their adjacent possessions from the Jādejas. In 1785 Sultānjī transferred his seat of rule to Porbandar, which has ever since been the Jethwa capital and given a name to the chiefship. The chief executed the usual engagements in 1807. He is entitled to a salute of 11 guns. The family follows the rule of primogeniture in point of succession, and holds a *sanad* authorizing adoption. The chief's title is Rānā of Porbandar. History.

The population at the last four enumerations was: (1872) 72,077, (1881) 71,072, (1891) 85,785, and (1901) 82,640, showing a decrease of 4 per cent. during the last decade, owing to the famine of 1899–1900. In 1901 Hindus numbered 71,642; Musalmāns, 9,741; and Jains, 1,158. The capital is PORBANDAR TOWN, and there are 96 villages. The style of house-building is peculiar. No mortar is used, but the limestone, of which better-class houses are built, is accurately squared and fitted; and it is asserted that the quality of the Population, &c.

limestone is such that when once the rain has fallen on a wall thus built, the joints coalesce and the wall becomes one solid block.

Agriculture, &c. The soil is as a rule an excellent black soil, though a less fertile red soil occurs in places. The area cultivated in 1903–4 was 295 square miles, of which 59 were irrigated. The principal crops are *jowār*, *bājra*, wheat, cotton, &c.; and the principal products of the sea are fish of many kinds. Turtles of large size abound along the coast, but are not captured. Oysters are found, but do not produce pearls like those of the Gulf of Cutch. The limestone, known as Porbandar stone, found over almost the whole of the State, is chiefly quarried in the Bardā hills, notably at the Adatiana quarry, and is largely exported to Bombay. Iron is also found, but is not smelted. Silk of good quality and cotton cloth are manufactured. In 1903–4 concessions were granted for the erection of a cotton-press. The Malik hill is the only portion of the elevated country that is fairly wooded. The forest revenue, derived chiefly from the sale of grass and wood, was Rs. 33,000 in 1903–4.

Much of the trade of the State has been absorbed by Bombay, but large quantities of timber are still imported from the Malabar ports. Cotton seed and tobacco are imported from Broach, embroideries from Surat, and raw sugar from Gandevi and Navsāri. Grain is imported from Karāchi. All the exports go to Bombay. Heavy port dues, the competition of Verāval and Bhaunagar, and insufficient communications account for the decline of the State as a trading centre. In 1881 a British Superintendent of customs was appointed under the local administration, but has now yielded place to a State official. The total value of the sea-borne trade in 1903–4 was 44 lakhs. The chief harbours are Porbandar, Mādhavpur, Miāni, and Navibandar. The Bhavnagar-Gondal-Junāgarh-Porbandar Railway passes through the State; and the net income of the State from the line in 1903–4 was Rs. 79,570.

Administration, &c. Porbandar ranked as a State of the first class in Kāthiāwār until 1869, and was restored to this rank again in 1886, during the period of Government administration. First-class powers were given to the present ruler in 1900, with certain restrictions, which have recently been removed. The chief has power to try persons for capital offences, the trial of British subjects for such offences, however, requiring the previous permission of the Agent to the Governor. He enjoys a gross revenue of about 9¾ lakhs (1903–4), chiefly derived from land

(3 lakhs). The State pays a tribute of Rs. 48,504 jointly to the British Government, the Gaikwār of Baroda, and the Nawāb of Junāgarh. The police force numbered 299 men in 1905. There are one jail and four lock-ups, with a daily average (1903–4) of 29 prisoners. The number of schools is 38, with a total (1903–4) of 2,485 pupils. The municipality at Porbandar had an income in 1903–4 of Rs. 26,000. The State has one hospital and three dispensaries, affording relief to about 123,000 patients in 1903–4. In the same year about 1,700 persons were vaccinated. A horse-breeding farm is maintained by the State.

Dhrāngadhra State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 33′ and 23° 13′ N. and 71° and 71° 48′ E., with an area of 1,156 square miles. It is an uneven tract intersected by small streams, and consists of hilly and rocky ground where stone is quarried. The State contains some fine lakes at Halvad and Mānsar. The climate is hot, but healthy, and the annual rainfall averages 24 inches. Physical aspects.

The chief of Dhrāngadhra belongs to the Jhāla tribe, originally a subdivision of the Makvāna family. This tribe is of great antiquity, and is said to have entered Kāthiāwār from the north, establishing itself first at Pātri in the Viramgām *tāluka* of Ahmadābād District, thence moving to Halvad, and finally settling in its present seat. The greater part of this territory was probably annexed at one time by the Muhammadan rulers of Gujarāt. Subsequently, during the reign of the emperor Aurangzeb (1658–1707), the subdivision of Halvad, then called Muhammadnagar, was restored to the Jhāla family. The States of Limbdi, Wadhwān, Chuda, Sāyla, and Thān-Lakhtar in Kāthiāwār are offshoots from Dhrāngadhra; and the house of Wānkāner claims to be descended from an elder branch of the same race. The chief of Dhrāngadhra entered into engagements with the British Government in 1807. He is entitled to a salute of 11 guns, and bears the title of Rāj Sāhib. He holds a *sanad* authorizing adoption, and the succession follows the rule of primogeniture. History.

The population at the last three enumerations was: (1881) 99,686, (1891) 103,754, and (1901) 70,880, showing a decrease of 31 per cent. during the last decade owing to the famine of 1899–1900. In 1901 Hindus numbered 61,854; Musalmāns, 4,416; and Jains, 4,584. There are 2 towns and 132 villages. The capital is DHRĀNGADHRA TOWN. Population.

With the exception of a small extent of rich black loam, the soil is of inferior quality. The total area of cultivated land is Agriculture, &c.

206 square miles, of which only 4 square miles are irrigated. The principal crops are cotton and the common varieties of grain. The manufactures are salt, copper and brass vessels, stone hand-mills, cloth, and pottery. Two ginning factories are at work in the State. In 1903–4 the imports were valued at 5½ lakhs and the exports at 1⅓ lakhs. The State maintains a railway line, 21 miles in length, between Dhrāngadhra and Wadhwān. There is only one made road, connecting Dhrāngadhra with Wadhwān, but the country tracks permit the passage of pack-bullocks. Dholera, in Ahmadābād District, about 70 miles to the south-west of Dhrāngadhra town, is the nearest port.

Administration, &c. Dhrāngadhra ranks as a first-class State in Kāthiāwār. The chief has power of life and death over all persons, the trial of British subjects for capital offences, however, requiring the previous permission of the Agent to the Governor. The land revenue is for the most part based on a division of produce. The gross revenue in an ordinary year is about 5 lakhs. The State pays a tribute of Rs. 44,677 to the British Government and to the Nawāb of Junāgarh. Transit dues are not levied. The State contains 3 municipalities, and maintains a military force of 335 men, of whom 75 are mounted, and a police force of 229 men, of whom 29 are mounted. There are 4 jails with a daily average (1903–4) of 31 prisoners; workshops are attached to the Dhrāngadhra jail. The number of schools is 39, attended by 1,822 boys and 360 girls in 1903–4. The State maintains one hospital and two dispensaries which afforded relief in 1903–4 to 21,826 persons. In the same year 1,774 persons were vaccinated.

Physical aspects. **Morvi State.**—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 23′ and 23° 6′ N. and 70° 30′ and 71° 3′ E., with an area of 822 square miles. The country is generally flat. The Machhu river, on which the town of Morvi stands, never runs dry, and is crossed by a good bridge. The climate near the coast is good, but fever is common throughout the State. The annual rainfall averages 23 inches.

History. The Thākur Sāhib of Morvi claims to be directly descended from the Cutch line and not through the Navānagar family. He possesses a small subdivision in Cutch with a port at Jangi. Many disputes have arisen with the Rao of Cutch regarding this port and the sea-borne trade. The differences which exist between the two States find a vent in obstructions offered to the trader. Tradition represents the chief of Morvi as the descendant of the eldest son of a Rao of Cutch who, in

the latter part of the seventeenth century, was murdered by a younger brother, and whose family thereupon fled to this place, then a dependency of Cutch. Their possession of Morvi was subsequently sanctioned by the Cutch ruler. The chief entered into the same engagements with the British Government as the other Kāthiāwār chiefs in 1807. He holds a *sanad* authorizing adoption, and the succession of the house follows the rule of primogeniture. He is entitled to a salute of 11 guns. The present chief was created a K.C.I.E. in 1887, and subsequently, in 1897, a G.C.I.E.

Population. The population at the last four enumerations was: (1872) 90,016, (1881) 89,964, (1891) 105,335, and (1901) 87,496, showing a decrease of 17 per cent. during the last decade, owing to the famine of 1899–1900. In 1901 Hindus numbered 72,443; Musalmāns, 10,099; and Jains, 4,913. The capital is MORVI TOWN, and there are 140 villages.

Agriculture, &c. Grain, sugar-cane, and cotton are the principal products. The area cultivated is 345 square miles, of which 3½ square miles are irrigated. Irrigation is provided by 4,257 wells and by the Paneli water-works, which irrigate 1,208 *bīghas*. A veterinary hospital is maintained; and horse-breeding is carried on by 14 stallions and 240 mares. Salt and coarse cotton cloth are manufactured. A cotton-mill, established by the State a few years ago, has recently been closed; but a cotton-ginning factory and gas-works are still maintained. The chief articles of export are cotton, oil, *ghī*, wool, grain, hides and horns; and the chief articles of import are timber, piece-goods, oil, and coal. The total trade by sea and land amounted in 1903–4 to about 31 lakhs: namely, imports, 12 lakhs; and exports, about 9 lakhs.

The State owns the port of Vavānia, on the Gulf of Cutch, and maintains a good road between Morvi and Rājkot. A tramway runs from Morvi to the port of Navlakhi. The State railway, nearly 90 miles in length, known as the Morvi Railway, has been partly converted to the metre gauge; it pays a dividend of about 5 per cent. Steam and oil launches are maintained by the State for traffic between Navlakhi port and Khari Rohar.

Administration, &c. Morvi ranks as a first-class State in Kāthiāwār. The chief has full power over his own people, the trial of British subjects for capital offences requiring the previous permission of the Agent to the Governor. He enjoys an estimated revenue of more than 7½ lakhs (excluding the railway), chiefly derived from land (4½ lakhs), and pays a tribute of Rs. 61,559 jointly

to the British Government, the Gaikwār of Baroda, and the Nawāb of Junāgarh. The State contains four municipalities. In 1905 an armed police force of 176 men was maintained; there are also 15 mounted men. The State contains a Central jail and four subsidiary jails, with a daily average of 102 prisoners. In 1903–4 there were 49 schools, with a total of 2,086 pupils, of whom 155 are girls; and 6 medical institutions, treating 25,000 patients. In the same year about 1,900 persons were vaccinated.

Physical aspects.

Gondal State.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 42′ and 22° 8′ N. and 70° 3′ and 71° 7′ E., with an area of 1,024 square miles. With the exception of the Osam hills, the country is flat. Several streams intersect the State, the largest, the Bhādar, being navigable by small boats during the rains. The climate is good, and the annual rainfall averages 25 to 30 inches.

History.

The chief of Gondal is a Rājput of the Jādeja stock, with the title of Thākur Sāhib. Gondal is mentioned in the *Ain-i-Akbarī* and the *Mirāt-i-Ahmadi* as a Vāghela holding in *sarkār* Sorath. The founder of the State was Kumbhojī I, who received Ardoi and other villages in the seventeenth century from his father Merāmanjī. Kumbhojī II, fourth of the line, raised the State to its present position, by acquiring the rich *pargana* of Dhorājī and Upleta as well as Sarsai, &c. The ruler entered into engagements with the British in 1807. The family holds a *sanad* authorizing adoption; the succession follows the rule of primogeniture. The chief is entitled to a salute of 11 guns. The present chief, H.H. Thākur Sāhib Sir Bhagvat Sinhjī, was created a K.C.I.E. in 1887, and a G.C.I.E. in 1897. He has also received the degrees of LL.D. and D.C.L.

Population.

The population at the last four enumerations was: (1872) 137,217, (1881) 135,604, (1891) 161,036, and (1901) 162,859. In 1901 Hindus numbered 125,397; Musalmāns, 30,442; and Jains, 6,811. There are 5 towns and 169 villages. The capital is GONDAL TOWN.

Agriculture, &c.

For purposes of irrigation, water is drawn in leathern bags from wells and rivers by means of bullocks. A new waterworks scheme for both irrigation and water-supply has recently been completed at a cost of $5\frac{1}{2}$ lakhs. The net revenue realized by the end of 1904 showed a return of 1·14 per cent. on irrigation outlay and 1·04 per cent. on water-supply outlay. Out of the total area of 1,024 square miles, 612 were returned in 1903–4 as cultivated. The total irrigated area is 53 square

miles. An experimental farm and four public gardens are maintained. Horse-breeding is carried on with four stallions, and cattle-breeding with two bulls. The chief products are cotton and grain; and the chief manufactures are cotton and woollen fabrics, gold embroidery, brass and copper utensils, wooden toys, and ivory bangles. The State contains six ginning factories and one cotton-press. There are 11½ miles of first-class metalled road between Gondal town and Rājkot. Gondal has always been pre-eminent amongst the States of its class for the vigour and success with which public works have been prosecuted. The produce of the State is exported from Māngrol, Verāval, and Jodiya. In 1903–4 the exports were valued at more than 8 lakhs, and the imports at 22½ lakhs. The Bhavnagar-Gondal-Junāgarh-Porbandar Railway passes through the State, which has a share in the line, and also a branch of it, the Jetalsar-Rājkot Railway, in which the State has a three-eighths share.

Gondal ranks as a first-class State in Kāthiāwār. The chief has power of life and death over all persons, the trial of British subjects for capital offences, however, requiring the previous permission of the Agent to the Governor. The estimated gross revenue in 1903–4 was more than 15 lakhs, chiefly derived from land (12 lakhs); and the expenditure was 13 lakhs. The State pays a tribute of Rs. 1,10,721 to the British Government, the Gaikwār of Baroda, and the Nawāb of Junāgarh. Of the five municipalities, the largest is GONDAL. The police force consists (1905) of 400 mounted and foot police, and there is an armed irregular force of 203 men. Eleven courts administer civil and criminal justice: and there are two jails and two lock-ups, which had a daily average of 93 prisoners in 1903–4. Besides a Girāsia college at Gondal, The State contains 85 schools with 6,803 pupils. In 1903–4 there were 2 hospitals and 4 dispensaries, affording relief to 46,000 persons, of whom 1,300 were in-patients. In the same year 3,800 persons were vaccinated. Administration, &c.

Jāfarābād State.—State in the Kāthiāwār Political Agency, Bombay. It is a dependency of the Nawāb of Janjīra on the Konkan coast, and lies between 20° 52′ and 20° 59′ N. and 71° 24′ and 71° 29′ E., 170 miles south of Ahmadābād, 150 south-west of Baroda, and 165 north-west of Bombay, with an area of 42 square miles. The annual rainfall averages 25 inches.

About 1731, when the Mughal power was much relaxed in Kāthiāwār, Jāfarābād was independent under the rule of its

thānadārs. They and the Muhammadan garrison, joining with the local Kolīs, &c., betook themselves to piracy and sorely harassed the trade and shipping of Surat. Sīdī Hilāl of the Janjīra house, who was then employed at Surat, attacked them and destroyed their ships, and imprisoning many Kolīs demanded a heavy fine from Jāfarābād. The *thānadārs*, being unable to pay the fine, sold Jāfarābād to Sīdī Hilāl. When Sīdī Hilāl perceived that he would not be able to retain the place, owing to the increased anarchy of the peninsula, he transferred it in 1762 to the Nawāb of Janjīra, who paid his debts, amounting to Rs. 7,000, and sent him as governor on his behalf.

The population at the last four enumerations was: (1872) 8,549, (1881) 9,400, (1891) 12,389, and (1901) 12,097. In 1901 there were 9,863 Hindus and 2,225 Musalmāns. The State contains one town and 11 villages. The chief crops are *bājra*, cotton, and wheat, the cultivated area in 1903–4 being 24·7 square miles. Stone is quarried for building purposes. Coarse cotton cloth is manufactured. A *māmlatdār* with judicial and revenue authority resides at Jāfarābād on behalf of the Nawāb of Janjīra, and the area ranks as a first-class State in Kāthiāwār. The gross revenue in 1903–4 was Rs. 62,000, chiefly derived from land (Rs. 22,900) and customs (Rs. 12,500). There is only one municipality, namely, Jāfarābād Town. The State maintains a police force of 13 men, and has 9 schools with 374 pupils. The two dispensaries treated 6,000 patients in 1903–4. In the same year the number of persons vaccinated was 313.

Wānkāner State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 25′ and 22° 48′ N. and 70° 50′ and 71° 12′ E., with an area of 415 square miles. The territory is hilly. The climate is hot, but healthy. The annual rainfall averages 22 inches.

The founder of the Wānkāner house was Sartanjī, son of Prathirājjī, the eldest son of Rāj Chandrasinghjī of Dhrāngadhra (1584–1628). The ruler entered into the usual engagements in 1807. The family follows the rule of primogeniture in matters of succession, and holds a *sanad* authorizing adoption. The chief is entitled to a salute of 9 guns. He also owns the village of Khasta in Ahmadābād District, the annual income of which is about Rs. 40,000. His title is Rāj Sāhib of Wānkāner.

The population at the last three enumerations was: (1881) 30,491, (1891) 39,329, and (1901) 27,383, showing a decrease

of 30 per cent. during the last decade, owing to the famine of 1899–1900. In 1901 Hindus numbered 17,728; Musalmāns, 7,911; and Jains, 1,719. The State contains one town, WĀNKĀNER, the capital; and 101 villages.

The soil is chiefly light, and the cultivated area is 104 square miles. Irrigation is practised to some extent from artificial tanks and wells, the total irrigated area in 1903–4 being 4 square miles. The principal products are grain, sugar-cane, and cotton. Experiments were made in 1903–4 with Egyptian cotton, but were not very successful. Horse-breeding is carried on with 3 stallions and 34 mares, and mule-breeding with one donkey stallion. A kind of black marble is found within the limits of the State. It contains one ginning factory. The nearest port is Jodiya.

Wānkāner ranks as a second-class State in Kāthiāwār. The chief has power to try his own subjects for capital offences. The normal revenue is estimated at 3 lakhs. A tribute of Rs. 18,879 is paid jointly to the British Government and the Nawāb of Junāgarh. The chief maintains a police force of 71 men, besides 13 irregulars, mounted on horses and camels. There is one jail, with a daily average (1903–4) of five prisoners. The only municipality, which is WĀNKĀNER, is maintained from the State revenues. The State has 15 schools, including one English school, with a total of 1,094 pupils; and also one hospital and two dispensaries, treating 13,000 patients.

Pālitāna State.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 23′ and 21° 42′ N. and 71° 31′ and 72° E., with an area of 289 square miles. It is bounded on the south by Baroda territory, and on the north, east, and west by Bhaunagar territory. The Shetrunji river, with its tributaries the Rājaval and Khāri, passes through the State. The climate is hot, and fever is prevalent. The annual rainfall averages about 25 inches. **Physical aspects.**

The family of the chief is descended from Shāhjī, second son of Sejakjī, the chief of Bhaunagar being descended from the eldest son, and the chief of Lāthi from the third. The ruler executed the usual engagements in 1807.

History. The family was for many years engaged in a dispute with the Jains concerning the control of Shetrunja hill (*see* PĀLITĀNA TOWN). This hill, which rises above the town of Pālitāna, is covered with Jain temples, and is the resort of innumerable pilgrims. Inquiry seems to show that, many years before the Gohel chiefs established themselves in Surāshtra, the Jains worshipped in Shetrunja. They produce an imposing array of

deeds from the Mughal emperors and viceroys, ending with one from prince Murād Baksh (1650), which confers the whole district of Pālitāna on Sāntidās the jeweller and his heirs. The firm of Sāntidās supplied Murād Baksh with money for war when he went with Aurangzeb to fight Dārā Shukoh at Agra and assume the throne. On the decay of the Mughal power jurisdiction over Pālitāna fell into the hands of the Gohel chief, a tributary of the Gaikwār. While, therefore, the whole mountain is regarded as a religious trust, it is under the jurisdiction of the chief, for whose protection the Shrāwaks have long paid a yearly subsidy. Under a decision of Major Keatinge's in 1863, the representatives of the Jain community had to pay a lump sum of Rs. 10,000 per annum for ten years to the chief, in lieu of his levying a direct tax of Rs. 2 a head on all pilgrims visiting the shrines, with the proviso that a scrutiny lasting two years, or longer if necessary, might be demanded by either side at the termination of that period, with a view to ascertain whether the yearly sum of Rs. 10,000 was more or less than the right amount. The chief demanded such a scrutiny in 1879, and, due arrangements having been made, the count of pilgrims commenced on April 23, 1880. The claims of the chief were settled for forty years by an annual payment of Rs. 15,000, commencing from 1886. A decision of the British Government, given in March, 1877, while it upholds the chief's legitimate authority, secures to the sect its established possessions, and maintains the sacred isolation of the hill.

The chief is a Hindu of the Gohel clan of Rājputs, and is entitled to a salute of 9 guns. The family holds a *sanad* authorizing adoption; in matters of succession the rule of primogeniture is followed. Since the death of the last Thākur Sāhib in 1905, the State has been administered by the British Government, owing to the minority of the present chief.

Population.

The population at the last four enumerations was: (1872) 51,476, (1881) 49,271, (1891) 60,848, and (1901) 52,856. During the last decade the population decreased by 15 per cent., owing to the famine of 1899-1900. In 1901 Hindus numbered 44,456; Musalmāns, 4,328; and Jains, 4,047. The State contains one town, PĀLITĀNA, the capital; and 90 villages.

Agriculture, &c.

In 1903-4 the State contained 183 square miles of land under cultivation, of which 9 square miles were irrigated. The principal crops are grain, sugar-cane, and cotton. Horse-breeding is carried on in the State paddocks, the aim being to breed from the pure Kāthi stock. There are two good

metalled roads in the State, one from Pālitāna to Songad and the other from Pālitāna to Gariadhar. There are two cotton-ginning factories.

Pālitāna ranks as a second-class State in Kāthiāwār. During the lifetime of the late chief there were five courts for the administration of civil and criminal justice, and he had power to try his own subjects in capital cases. The gross revenue is estimated at 6⅓ lakhs, chiefly derived from land. The State pays a tribute of Rs. 10,364 jointly to the Gaikwār of Baroda and the Nawāb of Junāgarh. No transit dues are levied. There is one municipality, at PĀLITĀNA TOWN, with an annual income of about Rs. 4,500. An armed police force of 113 men, including mounted and foot police, was maintained in 1905. In 1903–4 the jail contained a daily average of 26 prisoners, and there were 19 schools with 1,088 pupils. The State has a hospital and one dispensary, which treated 20,000 patients in 1903–4; and 1,330 persons were vaccinated in the same year. Adminis-tration, &c.

Dhrol State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 4′ and 22° 42′ N. and 70° 24′ and 70° 45′ E., with an area of 283 square miles. The country is for the most part undulating and rocky. The climate, though hot in the months of April, May, and October, is generally healthy. The annual rainfall averages 25 to 30 inches in good years.

The chief is by caste a Rājput of the Jādeja clan, with the title of Thākur Sāhib. The first of the line was Hardoljī, brother of Jām Rāwal, the founder of the Navānagar State. The ruler entered into engagements with the British Government in 1807. He is entitled to a salute of 9 guns. He holds a *sanad* authorizing adoption, and the succession follows the rule of primogeniture.

The population at the last three enumerations was: (1881) 21,777, (1891) 27,007, and (1901) 21,906, showing a decrease of 20 per cent. during the last decade owing to the famine of 1899–1900. In 1901 Hindus numbered 18,669; Musalmāns, 2,477; and Jains, 760. The State contains one town, DHROL, the capital; and 67 villages.

The soil is generally light, and is irrigated by water drawn from wells and rivers by means of leathern bags. In 1903–4 the area under cultivation was 72 square miles, of which about 5 square miles were irrigated. The chief crops are sugar-cane and the ordinary varieties of grain. Coarse cotton cloth is manufactured to a small extent. The produce of the State

is chiefly exported from Jodiya, a town on the coast. In 1903-4 the imports were valued at one lakh, and the exports at Rs. 24,000.

Dhrol ranks as a second-class State in Kāthiāwār. The chief is entitled to a salute of 9 guns, and has power of life and death over his own subjects. The gross revenue is estimated at about $1\frac{1}{4}$ lakhs, chiefly derived from land. No transit dues are levied. The State pays a tribute of Rs. 10,231 jointly to the Gaikwār of Baroda and the Nawāb of Junāgarh, and maintains a police force of 32 men including a few mounted men. There is one municipality, at DHROL. The State contains 8 schools with 531 pupils, and one dispensary which treated 5,956 patients in 1903-4. In the same year 537 persons were vaccinated.

Limbdi State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 30′ and 22° 37′ N. and 71° 44′ and 71° 52′ E., with an area of 244 square miles. The country is flat. The Bhogāva river flows through the State, but like some of the smaller streams it becomes brackish in the hot season. The climate of Limbdi, though hot, is healthy. The temperature ranges between a maximum of 114° and a minimum of 46°. The annual rainfall averages from 25 to 30 inches.

The Limbdi house is sprung from Harpāldeo, who was also the ancestor of the Dhrāngadhra house. Harpāldeo had three sons, the eldest of whom was the founder of the house of Dhrāngadhra; the second was Mānguji, the founder of the house of Limbdi; the third received Sachāna and Chor Vadodra. The chief executed the usual engagements in 1807. The succession follows the rule of primogeniture, and the family holds a *sanad* authorizing adoption. The chief is entitled to a salute of 9 guns, and his official title is Thākur Sāhib. The late chief, who died in 1907, had been created a K.C.I.E. in 1887.

The population at the last four enumerations was: (1872) 40,186, (1881) 43,063, (1891) 48,176, and (1901) 31,287, showing a decrease of 35 per cent. during the last decade, owing to the famine of 1899-1900. In 1901 Hindus numbered 24,001; Muhammadans, 2,982; and Jains, 4,296. The State contains one town, LIMBDI, the capital; and 46 villages.

The soil, in some parts black and in others red, is largely composed of sand. In 1903-4 the area under cultivation was returned at 87 square miles. There is practically no irrigation. The territory of Limbdi is peculiarly liable to inun-

dations, and suffered severely from this calamity in the years 1878–9 and 1899–1900. Cotton and grain are extensively cultivated, and coarse cloth is manufactured. The State has one cotton-ginning factory. Agricultural produce, which was formerly exported from Dholera, is now carried by the Bhavnagar-Wadhwān Railway.

Limbdi ranks as a second-class State in Kāthiāwār. The chief has power to try his own subjects for capital offences. The revenue in 1903–4 was about 2 lakhs, chiefly derived from land (1¾ lakhs). Revenue is collected in cash in all but four villages, in which a share of the produce is taken. No transit dues are levied. A tribute of Rs. 45,534 is paid jointly to the British Government and the Nawāb of Junāgarh. The only municipality is LIMBDI. The State maintains a military force of 77 men, of whom 27 are mounted; there is also an armed police force of 74 men. There is one jail, with a daily average (1903–4) of 13 prisoners. The State had 17 schools in 1903–4, with a total of 1,447 pupils. One dispensary is maintained, which treated 6,212 patients in 1903–4; the number of persons vaccinated was 680.

Rājkot State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 3′ and 22° 27′ N. and 70° 46′ and 71° 9′ E., with an area of 282 square miles. It is an undulating country, with a stony soil watered by several streams, of which the Aji is perennial. The climate, though hot in the months of April, May, and October, is generally healthy. The annual rainfall averages from 20 to 25 inches.

Rājkot is an offshoot of Navānagar. The founder of the house was Kunwar Vibhojī, younger son of Ajojī, a great-grandson of Jām Rāwal. In 1807 the ruler executed the usual engagements. The family follows the rule of primogeniture in matters of succession, and holds a *sanad* authorizing adoption. The chief is entitled to a salute of 9 guns; his title is Thākur Sāhib.

The population at the last four enumerations was: (1872) 36,770, (1881) 46,540, (1891) 49,958, and (1901) 49,795. In 1901 Hindus numbered 40,153; Musalmāns, 6,251; and Jains, 3,352. The only town is RĀJKOT, the capital, and there are 60 villages.

The total area under cultivation is 175 square miles, of which 14 square miles are irrigated. There is no uniform and fixed revenue system in the State, for 28 villages fall under the *bhāgbatai* or share of produce system and 3 under the *vighoti* or cash assessment system. The chief irrigational work is the

Lalpuri tank, which supplies 3 square miles. Horse-breeding is carried on in a State paddock, containing 2 stallions and 30 mares and costing about Rs. 5,000. Cattle-breeding also receives some attention. The common kinds of grain, sugar-cane, and cotton are the principal crops. They are exported from Gogha and Jodiya, and to a certain extent by rail from Wadhwān. The Jetalsar-Rājkot, Morvi, and Jāmnagar Railways pass through the State. Carts are the chief means of transport, but pack-bullocks and horses are also employed. Cotton and woollen cloth are the principal manufactures, and there is one ginning factory. Exports, consisting chiefly of cotton yarn, molasses, and hides, were valued at 3 lakhs in 1903-4; and imports, chiefly timber, cotton, silk, and ivory, at 10 lakhs.

The State ranks as a second-class State in Kāthiāwār. The chief has power to try his own subjects for capital offences. The estimated gross revenue is 3 lakhs, chiefly derived from land (2 lakhs). A tribute of Rs. 21,321 is paid jointly to the British Government and the Nawāb of Junāgarh. The State contains 3 municipalities, and 19 schools with a total of 1,875 pupils, of whom 359 are girls. It maintains an armed police force of 153 men, of whom 15 are mounted. There are two dispensaries affording relief in 1903-4 to 27,815 patients, and a travelling hospital assistant is engaged to carry medical relief to outlying villages. In the same year the number of persons vaccinated was 1,122.

Wadhwān State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 26′ and 22° 50′ N. and 71° 26′ and 71° 53′ E., with an area of 236 square miles. It is bounded on the north by the territory of Dhrāngadhra; on the south by the territory of Chuda and Limbdi, and by the Dhandhuka *tāluka* of Ahmadābād District; on the east by Limbdi; and on the west by Muli and Sāyla territory. The country is flat and is irrigated to some extent. The climate is hot but healthy. The annual rainfall averages about 20 inches.

In ancient times Wadhwān appears to have been held by Valas, Solankis, Vāghelas, and Muhammadans, who were dispossessed by the Jhālas, the present ruling family. The Jhālas are sprung from Prathirājjī, the eldest son of Rāj Chandrasinghjī of Dhrāngadhra (1584-1628), who came to Wadhwān and endeavoured to obtain the assistance of the *thānadār* against his father. The *thānadār*, though not engaging in active operations, suffered Prathirājjī to reside there. He aided the *thānadār* in several daring exploits, but

afterwards, being impatient of control, plundered treasure. He was then imprisoned and sent to Ahmadābād, where he died in confinement. His younger brother succeeded to the throne of Dhrāngadhra, and his sons were outlawed. Finally, the eldest took Wānkāner, and the second son established himself at Wadhwān about 1630. The ruler, like other Kāthiāwār chiefs, entered into the usual engagements in 1807. The family in matters of succession follows the rule of primogeniture, and holds a *sanad* authorizing adoption. The chief is entitled to a salute of 9 guns. His title is Thākur Sāhib.

The population at the last three enumerations was: (1881) 42,500, (1891) 42,438, and (1901) 34,851, showing a decrease of 18 per cent. during the last decade, owing to the famine of 1899–1900. In 1901 Hindus numbered 27,714; Musalmāns, 2,032; and Jains, 5,080. The State contains one town, WADHWĀN, the capital; and 31 villages.

The soil is black or light, in about equal proportions. The cultivated area is 80·8 square miles, of which 3 square miles were irrigated in 1903–4. Cotton and the usual grains are grown. Country soap, which is largely used by the people of Kāthiāwār and Gujarāt, is the chief article of manufacture; but weaving and dyeing are also carried on, and there is one ginning factory. The produce of the State, once exported from the port of Dholera, now goes by rail.

Wadhwān ranks as a second-class State in Kāthiāwār. The chief has power to try his own subjects for capital offences. The estimated revenue is 3¾ lakhs, chiefly derived from land. A tribute of Rs. 28,692 (including *sukhdi* on account of Ahmadābād District) is paid jointly to the British Government and the Nawāb of Junāgarh. There is one municipality, supported by State revenues. The State maintains a military force of 163 men, of whom 39 are mounted, and a police force of 151 men. There is one jail with a daily average in 1903–4 of 22 prisoners. There are 21 schools, with a total of 1,658 pupils, and two dispensaries treating about 15,000 patients in 1903–4. In the same year about 766 persons were vaccinated.

Lakhtar (Thān-Lakhtar).—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 49′ and 23° N. and 71° 46′ and 72° 3′ E., with an area of 248 square miles. The population in 1901 was 15,114, residing in 51 villages. The revenue in 1903–4 amounted to Rs. 70,250.

The State consists of two distinct portions, Thān and Lakhtar, together with some outlying villages in Ahmadābād

District. There are some rocky tracts, but neither rivers nor hills of any size. About 48 square miles were under cultivation in 1903-4, of which 1½ square miles were irrigated. Cotton and the usual grains are grown. The potters (Botiers) of Thān enjoy a wide reputation for the excellence of their work. Lakhtar ranks as a third-class State in Kāthiāwār. The Lakhtar *tāluka* was granted by the Dhrāngadhra chief to Abhaisinghjī, son of Rāj Chandrasinghjī. He conquered Thān and the surrounding country from the Bābriās in about 1604-15. The present chief is descended from this family. His title is Thākur of Lakhtar.

Sāyla State.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 26′ and 22° 51′ N. and 71° 12′ and 71° 34′ E., with an area of 222 square miles. The population in 1901 was 11,661, residing in one town and 38 villages. The revenue in 1903-4 was Rs. 66,000, and 59 square miles were cultivated. The State ranks as a third-class State in Kāthiāwār. Sāyla is mentioned as a *pargana* of Jhālawār in the *Ain-i-Akbarī*, but by the eighteenth century it had fallen into the hands of the Kāthis. Sheshabhai, the son of the Halavad chief, took possession of Sāyla in 1751, and added it to the *girās* of Narichāna and Liya, which he had obtained in his struggle for the possession of Dhrāngadhra. He was succeeded by Kakobhai, also called Vikmatsingh (1794-1813), in whose time a permanent settlement of tribute was made with the British Government. His descendant now rules over the State. The title is Thākur; but the present chief bears the title of Thākur Sāhib, conferred on him as a personal distinction.

Chuda State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 23′ and 22° 30′ N. and 71° 37′ and 71° 51′ E., with an area of 78 square miles. The population in 1901 was 12,005, residing in one town and 13 villages. The revenue in 1903-4 amounted to 1·2 lakhs, and 39 square miles were cultivated. Chuda ranks as a third-class State in Kāthiāwār. It is an offshoot from Wadhwān. The ruler first entered into engagement with the British Government in 1807. His title is Thākur.

Vala State.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 51′ and 22° 1′ N. and 71° 50′ and 72° 3′ E., with an area of 109 square miles. The population in 1901 was 13,285, residing in 40 villages. The revenue in 1903-4 amounted to 2·25 lakhs, and 54 square miles were cultivated. Vala ranks as a third-class State in Kāthiāwār.

The ancient name was Vallabhipur. Subsequent to its overthrow, a portion of the ruling tribe returned hither from exile under the name of Vala, and ruled here till about the middle of the tenth century, when they were driven out by Mulrāj Solanki of Pātan, who established his authority as far as Gogha, the Vala *girāsiās* being left in undisturbed possession of the surrounding country. They established themselves in Talāja, expelling the Mehar rulers, and spread to Bhadrod. In 1260 the Gohels conquered Vala and compelled the Valas to quit their ancient seat, which passed to the Muhammadans when they acquired Gujarāt. After the death of Aurangzeb, Vala and Loliana fell into the hands of Bhausinghjī, the founder of Bhaunagar, who bestowed Vala and two other villages on Visojī, the founder of the Vala house. Visojī is said by some to have been a twin-brother of Akherājjī, who succeeded his father Bhausinghjī. He enlarged his patrimony by conquest from the Kāthis and others, and died in 1774. In the time of his grandson Meghabhai (1798–1814), a settlement of tribute was concluded with the British Government. The chief bears the title of Thākur.

Jasdan State.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 56′ and 22° 17′ N. and 71° 8′ and 71° 35′ E., with an area of 283 square miles. The population in 1901 amounted to 25,727, residing in 56 villages. The revenue in 1903–4 was Rs. 1,23,000, and 151 square miles were cultivated, of which 19 square miles were irrigated. Jasdan ranks as a third-class State in Kāthiāwār. Jasdan town may derive its name from Swāmi Chashtana, one of the very earliest of the Kshatrapa dynasty. During the rule of the Ghorīs of Junāgarh, a strong fort was built there, and the town was called Ghorīgarh. Later on it fell into the hands of the Khumāns of Kherdi and was conquered from Jasa Khumān about 1665 by Vika Khāchar, the grandson of Lakha Khāchar, the founder of the Lakhani branch of Khāchars. In the time of Vajsur Khāchar, who was a powerful chief and established a *pāl* or claim to blackmail over the surrounding country as far as Dhandhuka and Cambay, it was taken by Bhaunagar. Subsequently Jasdan was seized by the Jām of Navānagar, but he restored it to Vajsur Khāchar on the occasion of the marriage of Jām Jasajī. Vajsur Khāchar came to terms with the British and the Gaikwār in 1807–8. The State is now ruled by this family with the title of chief. They follow the rule of primogeniture.

Mānāvadar (or Bāntva-Mānāvadar).—State in the Kāthi-

āwār Political Agency, Bombay, lying between 21° 23′ and 21° 41′ N. and 70° 2′ and 70° 23′ E., with an area of 90 square miles. The population in 1901 was 14,478, residing in 23 villages. The revenue in 1903–4 was Rs. 2,35,447, and 83 square miles were cultivated. Mānāvadar ranks as a third-class State in Kāthiāwār. The ruling family is Musalmān, and is descended from a younger son of the second Nawāb of Junāgarh, to whom the Bāntva territory was made over in 1740. Engagements to keep order and remain at peace were entered into with the British Government in 1807. There are two sharers with the ruling chief, both holding the title of Bābi, one of whom resides at Sardārgarh and the other at Bāntva.

Jetpur (Devli).—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 36′ and 22° 49′ N. and 70° 35′ and 70° 51′ E., with an area of 94 square miles. The population in 1901 was 11,568, residing in 21 villages. The revenue in 1903–4 was Rs. 1,25,000, and the cultivated area 48 square miles. The State ranks as a fourth-class State in Kāthiāwār, but the present chief has the rank of a third-class chief. Jetpur is now held by twenty *tālukdārs*, descended from a common ancestor, Nāja Desa; and the four most important States are shown below. Nāja Desa's two sons, Viro and Jeto, founded the Virāni and Jethāni subdivisions of Jetpur; and Viro had two sons who in their turn subdivided the Virāni estate into two parts, Oghad Virāni and Kānthad Virāni. The Jethāni estate was similarly again subdivided into Vikamshi Jethāni and Bhoko Jethāni. The four principal States now exercising third and fourth-class jurisdiction are:—

State.	Class.	Subdivision.
Jetpur (Devli) . .	3rd class .	Bhoko Jethāni.
Jetpur (Vadia) . .	" .	Kānthad Virāni.
Jetpur (Mulu Surag) .	4th class .	Vikamshi Jethāni.
Jetpur (Nāja Kāla) .	" .	Oghad Virāni.

Two different accounts are given of the acquisition of Jetpur: namely, that of the *Tārīkh-i-Sorath*, which says that the first Nawāb of Junāgarh, Bahādur Khān I, granted Jetpur to Vala Vira; and a tradition which says that Viro Nāja of Chital aided the Valas of Bagasra in their feud with Vaijo Khasia of Mitiala, and that Vala Sāmant of Bagasra was slain in the battle. In consideration of Viro's aid, the Valas of Bagasra gave him Jetpur. These Bagasra Valas acquired their share in Jetpur from the Khadia Baloch, who received it from

the local Muhammadan governors of former times. Subsequently Jetpur was conquered from Champrāj, the great-grandson of Jetha Nāja, by Shams Khān, a Musalmān *sardār*. The *tāluka* remained in an unsettled state for a long time, but in course of time Champrāj's descendant restored it to its former position.

Jetpur (Vadia).—State in the Kāthiāwār Political Agency, Bombay, situated in about 21° 40′ N. and 71° 53′ E., with an area of 72 square miles. The population in 1901 was 10,330, residing in 17 villages. The revenue in 1903–4 was Rs. 1,30,000, and the cultivated area 43 square miles. The State ranks as a third-class State in Kāthiāwār. For history see JETPUR (DEVLI).

Lāthi State.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 41′ and 21° 45′ N. and 71° 23′ and 71° 32′ E., with an area of 42 square miles. The population in 1901 was 8,831, residing in nine villages. The revenue in 1903–4 was Rs. 1,37,500, and 33 square miles were cultivated. The State ranks as a fourth-class State in Kāthiāwār. The Lāthi chiefs are descended from Sārangjī, one of the sons of the Gohel Sejakjī, the common ancestor of the Bhaunagar, Pālitāna, and Lāthi houses. One of the Thākurs of Lāthi wedded his daughter to Dāmājī Gaikwār and gave the estate of Chabhāria, now called Dāmnagar, in dowry, being exempted from tribute in return. He now offers a horse yearly. In 1807 the Gaikwār became security for the Thākur's engagements to keep order in his territory.

Muli State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 38′ and 22° 46′ N. and 71° 25′ and 71° 38′ E., with an area of 133 square miles. The population in 1901 was 15,136, residing in 20 villages. The revenue in 1903–4 was Rs. 79,773, and 25 square miles were cultivated. The State ranks as a fourth-class State in Kāthiāwār, and is the only Ponwār chiefship. The Ponwārs entered the peninsula about 1470–5 from Thar and Pārkar, under the leadership of Laghhdirjī, and established themselves at Thān and Chotila. They founded the present town of Muli, named after a Rabāri woman. After three generations the Kāthis crossed over to Thān, and shortly after expelled the Ponwārs from Chotila. Since then the Kāthis have held Chotila, and the Ponwārs' holding has been limited to Muli and the adjacent villages.

Bajāna.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 58′ and 23° 10′ N. and 71° 40′ and 71° 59′ E., with an area of 183 square miles. The population in 1901 was 10,279, residing in 27 villages. The revenue

in 1903–4 was Rs. 71,000, and 38 square miles were cultivated. Bajāna ranks as a fourth-class State in Kāthiāwār. The Jats or Jāts of Bajāna originally came from Vānga Bāzār in Sind, whence they were driven by one of the rulers in consequence of their refusing him a bride from their community, and were forced to seek shelter with the Ponwārs in the Māndav hills near Thān. The Jats were employed in the siege of Chāmpāner, and there displayed such prowess that the Sultān bestowed on their leader, Malik Hedojī, the twenty-four villages subject to Bajāna. Shortly after this they conquered Mandal from the Jhālas. Malik Isājī next established himself at Vālivda and subsequently at Vārāhi, which he took from Rāvmās, while Malik Lākha and Malik Haidar Khān settled respectively in Sitāpur and Vanod and in Bajāna. Vārāhi and its neighbourhood is called Great Jatvār, and Bajāna and its neighbourhood Little Jatvār.

Vīrpur.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 47′ and 21° 55′ N. and 70° 42′ and 70° 46′ E., with an area of 67 square miles. The population in 1901 was 6,152, residing in 13 villages. The revenue in 1903–4 was Rs. 65,363, and 34 square miles were cultivated. The State ranks as a fourth-class State in Kāthiāwār. Vīrpur was the earliest offshoot of Navānagar. The founder of the house, Bhānjī, a son of Jām Vibhojī I, received Kālāvad in apanage. His son Bhārojī, quitting Kālāvad, established himself in a subordinate position in the Muhammadan *thāna* of Kharedi. Here he made himself useful to the *thānadār* in expelling the Kāthis, and received a portion of their lands. Mokojī, the seventh in descent from Bhārojī, obtained the sole possession of Kharedi, expelling the *thānadār* in 1766. He also conquered Vīrpur and two other villages from the Kāthis, who had occupied that town on the dissolution of the Mughal power; and he made a consolidated *tāluka* of 13 villages with Vīrpur as his capital.

Mālia.—State in the Kāthiāwār Political Agency, Bombay, lying between 23° 1′ and 23° 10′ N. and 70° 46′ and 71° 2′ E., with an area of 903 square miles. The population in 1901 was 9,075, residing in 17 villages. The revenue in 1903–4 was Rs. 1,56,000, and the cultivated area 68 square miles. The State ranks as a fourth-class State in Kāthiāwār. The Thākur or chief was raised from the fifth to the fourth class to give him a greater hold over the Miānas, a predatory tribe which infests the neighbourhood. He is a representative of the elder branch of the Cutch family, and executed the usual engagements in 1807.

Kotda (or Sāngāni).—Petty State in the Kāthiāwār Political Agency, Bombay, lying between 21° 54′ and 22° 4′ N. and 70° 51′ and 71° 8′ E., with an area of 74 square miles. The population in 1901 was 8,835, residing in 20 villages. The revenue in 1903–4 was Rs. 91,500, and the cultivated area 76 square miles. The State ranks as a fourth-class State in Kāthiāwār. The founder was Sāngojī, a son of Kumbhojī of Gondal. His grandsons Jasojī and Sartanjī in 1750 conquered Kotda from the Kāthis, and removed their capital thither from Ardoi. Dying without issue, they were succeeded by their younger brother Devojī, from whom the present chief is descended.

Jetpur (Mulu Surag).—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 36′ and 21° 49′ N. and 70° 36′ and 70° 50′ E., with an area of 25 square miles. The population in 1901 was 6,728, residing in 16 villages. The revenue in 1903–4 was Rs. 60,000, and the cultivated area 20 square miles. The State ranks as a fourth-class State in Kāthiāwār. For history see JETPUR (DEVLI).

Jetpur (Nāja Kāla or Bilkha).—State in the Kāthiāwār Political Agency, Bombay, lying between 21° and 21° 23′ N. and 70° 35′ and 70° 57′ E., with an area of 72 square miles. The population in 1901 was 10,366, residing in 24 villages. The revenue in 1903–4 was Rs. 1,75,000, and the cultivated area 52 square miles. The State ranks as a fourth-class State in Kāthiāwār. For history see JETPUR (DEVLI).

Pātdi.—State in the Kāthiāwār Political Agency, Bombay, lying between 23° 7′ and 23° 8′ N. and 71° 48′ and 71° 58′ E., with an area of 40 square miles. The population in 1901 was 2,190, residing in seven villages. The revenue in 1903–4 was Rs. 22,000, and the cultivated area 94 square miles. The State ranks as a fourth-class State in Kāthiāwār.

Bagasra.—Town in the Bagasra *tāluka* of the Sorath *prānt*, Kāthiāwār, Bombay, situated in 21° 29′ N. and 71° E., 15 miles from Kunkavav on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway. Population (1901), 9,178. It belongs to the Vala Kāthis, and is the seat of an Agency *thāna*. Bagasra is situated in the vicinity of the Gīr, or wild highlands which occupy the centre of the Kāthiāwār peninsula. It was conquered about 1525 by Vala Mancha Bhaiya of Deogām Devli. Square cotton shirts (*chophāls*) and women's scarves (*sādlas*) are manufactured. It is also a mart for the Gīr timber.

Bāntva.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 21° 28′ N. and 70° 7′ E. Population (1901), 8,591. The town is fortified.

Bardā Hills.—Hills in Kāthiāwār, Bombay, about 18 miles distant from the coast, near Porbandar. They form a circular cluster about 30 miles in circumference, and are visible from a distance of from 25 to 30 miles. From the north they appear grouped in three distinct peaks. The most westerly, called Venu, is the highest, rising to about 1,730 feet above the sea. The well-watered and bamboo-covered slopes of the Bardā hills formed in the disturbed times a favourable refuge for outlaws.

Bhaunagar Town (*Bhāvnagar*).—Town and port in the Gulf of Cambay, and capital of the State of the same name in Kāthiāwār, Bombay, situated in 21° 45′ N. and 72° 12′ E. Population (1901), 56,442: namely, 40,677 Hindus, 4,463 Musalmāns, 10,681 Jains, 248 Christians, and 373 Pārsīs. The town was founded in 1723 by Bhausinghjī, and rapidly rose to influence under a line of princes who encouraged commerce and suppressed the piratical communities that infested the Gulf of Cambay. It has a good and safe harbour for shipping of light draught, and carries on an extensive trade as one of the principal markets and harbours of export for cotton in Kāthiāwār. It possesses a spinning and weaving mill with 14,288 spindles and 20 looms, and several steam presses. The harbour is difficult of access, being approached by a winding creek. The total sea-borne trade in 1903–4 was valued at 221 lakhs: namely, exports 130 lakhs and imports 91 lakhs. Besides manufactures of several kinds, such as cloth, sugar-candy, boxes bound in brass and iron, carriages, turbans, &c., there are a Mangalore tile and brick factory, a saw-mill, an ice factory, and an iron foundry. The town is administered by a municipality, with an income exceeding Rs. 44,000 in 1903–4. The Gauri Shankar lake, or Ganga Talao, constructed at a cost of nearly 6 lakhs, is the chief source of water-supply for the town and shipping. Besides numerous temples and mosques the town has two churches, a Christian burial-ground, and a Pārsī 'tower of silence.' Of the several public buildings, the Victoria Jubilee water-works, the Percival market and Percival fountain, the Peile gardens and the Victoria Park, the Court of Justice, and the high school are prominent. The town contains two hospitals, one of which is for plague patients only.

Bhāyāvadar.—Town in the State of Gondal, Kāthiāwār, Bombay, situated in 21° 51′ N. and 70° 17′ E., about 15 miles north-west of Dhorājī, a station on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway. Population (1901), 5,918. At the collapse of the Mughal empire it fell into the hands of the Desais, who about 1753 sold it to the Jādeja Hālojī of Gondal.

Botād.—Fortified town in the State of Bhaunagar, Kāthiāwār, Bombay, situated in 22° 10′ N. and 71° 42′ E., on the Bhavnagar-Wadhwān Railway. Population (1901), 8,857. The town is said to have been founded by the Jhālas of Kondh, a branch of the Dhrāngadhra family. At no great distance is the shrine and tomb of the Musalmān saint, Pīr Hamīr Khān. The Botād traders are rich and enterprising, and include many wealthy bankers. Near the Sātpurā hills not far from the town is a fine reservoir known as the Phātsar. There is one ginning factory in Botād.

Chuda Town.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 22° 29′ N. and 71° 44′ E. Population (1901), 5,581. It is a railway station on the Bhavnagar-Wadhwān line.

Dhorājī.—Fortified town in the State of Gondal, Kāthiāwār, Bombay, situated in 21° 45′ N. and 70° 37′ E., on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway, 43 miles south-west of Rājkot and 52 miles east of Porbandar. Population (1901), 24,825, including 10,599 Hindus, 12,686 Muhammadans, and 1,518 Jains. The town is about 3 miles to the east of the Bhādar river, and is connected by a good road with Junāgarh. It was acquired by Kumbhojī II of Gondal from Junāgarh about the middle of the eighteenth century. It has always been a centre of trade, and is the head-quarters of a revenue officer and also of a Munsif. A horse tramway connects the railway station with the town, which possesses a fine hospital and a clock-tower.

Dhrāngadhra Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 22° 59′ N. and 71° 31′ E., 75 miles west of Ahmadābād, the terminus of the Dhrāngadhra Railway, which meets the other Kāthiāwār lines at Wadhwān. Population (1901), 14,770. The town is fortified. Its name is probably derived from the Sanskrit *dharāng*, 'a stone,' and *dhara*, 'a holder,' as the place is very strong and abounds in quarries. The town is entirely built of the local stone, which is famous throughout Gujarāt. There is a hospital, which treated 13,750 patients in 1903–4.

Dhrol Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 22° 34′ N. and 70° 30′ E., about 32 miles north-west of Rājkot and 24 miles north-east of Navānagar, with both of which it is connected by a made road. Population (1901), 5,660. There is a dispensary, which treated 5,956 patients in 1903–4.

Gadhada.—Town in the State of Bhaunagar, Kāthiāwār,

Bombay, 42 miles from Bhaunagar town. Population (1901), 5,375. This is one of the principal centres of the sect of Swāmi Nārāyan, founded in 1804 by a Hindu reformer, Sahajānand, from Chhapia in the United Provinces, who died here in 1830 after converting many of the Kāthis, Kolīs, and Bhīls. Necklaces of sandal-wood beads worn by followers of the sect are made in considerable quantities. The sect possesses a fine temple here. The town is the head-quarters of the revenue officer, and the criminal court of the Gadhada district is held here.

Gīr.—Range of hills in Kāthiāwār, Bombay, extending over 40 miles in length, commencing from a point about 20 miles north-east of Diu island. Captain Grant of the Indian Navy was captured in 1813 by an outlaw named Bāwā-Vāla, who kept him a prisoner on these hills for two and a half months. The region consists of a succession of rugged ridges and isolated hills covered with forest. It has long been famous as the haunt of a particular variety of lion, which some few years ago was in danger of extermination. Latterly, however, they have been protected to such an extent that their numbers have risen to about seventy, and they have on many occasions killed cattle and even attacked solitary villagers.

Girnār.—Sacred hill, with many temples, in Kāthiāwār, Bombay, situated in 21° 30′ N. and 70° 42′ E., about 10 miles east of Junāgarh town. The hill rises to about 3,500 feet above sea-level and has five principal peaks: Ambā Māta, which is crowned by the temple of that goddess; Gorakhnāth, the highest of all, which is 3,666 feet above the sea; Oghad Shikhar; Gurū Dattatraya; and Kālka's peak, which till quite recently was the resort of Aghoris or Mardikhors, a degraded order of ascetics who profess to recognize no distinctions in the purity of food and have been known to eat human flesh. The fortress and part of the old palace of the Chudāsamās is still standing. There are three famous *kunds* or reservoirs, the Gau Mukhi, Hanumān Dhāra, and Kamandal Kund. The great rock Bhairav Jap forms a most picturesque feature of the hill. A little distance from the foot of the hill lies Vāmansthali, the ancient capital, while Balisthān, the modern Bilkha, lies immediately at its base. The ancient name of the hill was Ujjayanta or Girvar. It forms one of the sacred seats of the Jains, only second in importance to Pālitāna. A rock at the foot of the hill is covered with a set of Asoka's inscriptions (250 B.C.). Another inscription (A.D. 150) relates how the local monarch Rudra Dāman defeated the king of the Deccan;

while a third (A.D. 455) records the bursting of the embankment of the Sudarsana tank and the rebuilding of a bridge which was destroyed by the flood. There are, however, no remains of any ancient city, temples, or ruins of a corresponding age to these inscriptions, and but for their dates the place would have seemed to be unknown before the tenth century.

There are six *parabs* or resthouses on the ascent to the temple of Nemināth. The temple of Ambā Māta, which crowns the first peak of the hill, is much resorted to by newly-married couples of the different subdivisions of the Brāhman caste. The bride and bridegroom have their clothes tied together, and, attended by their male and female relatives, present coco-nuts and other offerings to the goddess, whose favour is sought to secure a continuance of wedded felicity. The Junāgarh State has recently erected a fine flight of steps to the top of the hill.

Fergusson, in his *History of Indian Architecture* (1876, pp. 230–2), thus describes the architectural features of Girnār :—

'The principal group of temples at Girnār, some sixteen in number, is situated on a ledge about 600 feet from the summit and nearly 3,000 feet above the level of the sea. The largest and possibly the oldest of these is that of Nemināth. An inscription upon it records that it was repaired in A.D. 1278, and unfortunately a subsequent restorer has laid his heavy hand upon it, so that it is difficult now to realize what its original appearance may have been. The temple stands in a courtyard measuring 195 feet by 130 feet over all. Around the courtyard are arranged 70 cells with a covered and enclosed passage in front of them, each of which contains a cross-legged seated figure of the Tīrthankar to whom the temple is dedicated (Nemināth), and generally with a bas-relief or picture representing some act in his life. Immediately behind the temple of Nemināth is a triple one, erected by the brothers Tejpāla and Vastupāla, who also erected one of the principal temples in Abu.'

Gondal Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 21° 57′ N. and 70° 53′ E., on the western bank of the Gondali river. Population (1901), 19,592, including 12,995 Hindus, 4,289 Musalmāns, and 2,239 Jains. Gondal is connected with Rājkot, Jetpur, Junāgarh, Dhorājī, Upleta, and Mānekwāra by good roads. It is a railway station on the branch line between Rājkot-Jetalsar on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway. The town is fortified. It contains two public gardens, an orphanage, an asylum, a hospital, and a Girāsia college.

Halvad.—Fortified town in the State of Dhrāngadhra, Kāthiāwār, Bombay, situated in 23° 1′ N. and 71° 14′ E., 85 miles south-west of Ahmadābād. Population (1901), 5,312. Halvad was once the capital of the State, and is said to resemble a plough in shape, its name being popularly derived from this peculiarity. It possesses a fine palace built on the Sāmatsar lake, and a number of *satī* memorial stones with several old temples.

Jāfarābād Town.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 20° 52′ N. and 71° 25′ E. Population (1901), 6,038. Jāfarābād has great natural advantages for the coasting trade, being situated about a mile from the sea, on the estuary of the Ranai, the most accessible river on the coast of Kāthiāwār. The commerce of the port is only second in importance to that of Diu. The imports in 1903–4 amounted to 5·3 lakhs, and the exports to 3·3 lakhs. The town derives its name from Sultān Muzaffar of Gujarāt, who built the fortifications, the name being a contraction of Muzaffarābād. It is now a dependency of the Nawāb of Janjīra. A *māmlatdār* with judicial and revenue authority resides here on behalf of the Nawāb. The town is administered as a municipality, with an income of Rs. 1,400 in 1903–4.

Jasdan Town.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 22° 5′ N. and 71° 20′ E., about 4 miles north-east of Atkot, and 6 miles north of Kotra Pitha, both of which are on the Rājkot-Bhaunagar high road. Population (1901), 4,628. Jasdan is a town of great antiquity, and possibly derives its name from Swāmi Chashtana, the second ruler of the Kshatrapa dynasty. During the rule of the Ghorīs of Junāgarh a strong fort was built here, and the town was called Ghorigarh. A good road connects it with Vinchia. An agricultural bank has recently been opened in Jasdan for the benefit of the cultivating classes.

Jetpur Town.—Fortified town in the State of the same name in Kāthiāwār, Bombay, situated in 21° 45′ N. and 70° 48′ E., on the western bank of the Bhādar river, 40 miles north-east of Porbandar. Population (1901), 15,919. Jetpur is a flourishing town on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway, well equipped with public buildings. A fine bridge has been thrown across the Bhādar river about a mile north of the town.

Jodiya.—Town and chief port of Navānagar State, Kāthiāwār, Bombay, situated in 22° 40′ N. and 70° 26′ E., about 24 miles north-east of Navānagar town, 46 miles north-west

of Rājkot, and 40 miles west of Morvi. Population (1901), 7,321. The port was formerly a fishing village on the south-eastern shores of the Gulf of Cutch. The wharf is about a mile and a half distant from the town, with which it is connected by a good made road. A custom-house and a press for cotton and wool bales are at the wharf. The water off this part of the coast is too shallow for ships of any considerable burden. According to a local tradition, the Gulf from Jodiya to the opposite coast of Cutch could be crossed by a footpath at low water two centuries ago. The north-west bastion of the fort, 80 feet above the sea, the palace or *darbār* house, 300 yards south-east of the bastion, and a grove of trees, a mile to the south and outside the town, are high and conspicuous marks when nearing the port from seaward. The town is surrounded by a wall with towers, and has a small interior fort. It contains vernacular boys' and girls' schools and a dispensary.

Junāgarh Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 21° 31′ N. and 70° 36′ E., 60 miles south-west of Rājkot. Population (1901), 34,251, including 17,248 Hindus, 15,911 Musalmāns, and 1,029 Jains.

Junāgarh, situated under the Girnār and Dātār hills, is one of the most picturesque towns in India, while in antiquity and historical interest it yields to none. The Uparkot or old citadel contains interesting Buddhist caves, and the whole of the ditch and neighbourhood is honeycombed with caves or their remains. The most interesting of these, called Khāprā-kodia, have the appearance of having been once a monastery two or three storeys in height. Dr. Burgess, in his *Antiquities of Cutch and Kāthiāwār*, has fully described these caves. The ditch is cut entirely out of the rock and forms a strong defence. In the Uparkot are two *vāvs* or wells, said to have been built by slave girls of Chudāsama rulers in olden times; and a mosque built by Sultān Mahmūd Begara. Near the mosque is a cannon 17 feet long, 7½ feet in circumference at the breech, and 9½ inches in diameter at the muzzle; another large cannon in the southern portion of the fort is 13 feet long and has a muzzle 14 inches in diameter. From the times of the Anhilvāda kings the Uparkot has been many times besieged, and often taken, on which occasions the Rājā was wont to flee to the fort on Girnār, which from its inaccessibility was almost impregnable. Of late years several public buildings have been erected, and the town has been much improved by fine houses built by the nobles of the court. Among the

public buildings may be mentioned a fine hospital, the Bahā-ud-dīn Arts College, a library and museum, the Reay Gate with a clock-tower, and a fine high school. A collection of shops called the Māhābat Circle is in front of the Nawāb's palace. Uparkot is the ancient Junāgarh; the present town is more correctly called Mustafābād, and was built by Mahmūd Begara of Gujarāt.

Khambhāliya.—Fortified town in the State of Navānagar, Kāthiāwār, Bombay, situated in 22° 12′ N. and 69° 50′ E., at the confluence of two small streams, the Teli and Ghi, flowing into the Salāya creek, about 10 miles east of the port of Salāya. Population (1901), 9,182. After Navānagar, it is the most important place in the State. It was formerly a possession of the Vādhels, from whom it was conquered by Jām Rāwal, and was the residence of the Jām or chief until the death of the emperor Aurangzeb. It contains several old temples. The ironsmiths of the town are renowned for their skill, and the gunsmiths are capable of making breech-loading firearms. A tax is levied on all pilgrims passing through to DWĀRKA and Pindtārak, a seaport near Khambhāliya which contains a celebrated shrine. It is said that the remains of several ancient temples, now covered by the sea, are visible at extremely low tides. Khambhāliya is the head-quarters of a *mahāl* or revenue division of the Navānagar State.

Kutiyāna.—Town in the State of Junāgarh, Kāthiāwār, Bombay, situated in 21° 38′ N. and 70° 10′ E., on the Bhādar river, 25 miles east of Porbandar. Population (1901), 10,287. Kutiyāna is a fortified town with an inner citadel, and is the head-quarters of a *mahāl* or revenue division. Old Kutiyāna or Sākuka-no-timbo is about a mile to the west of the modern town; and there are remains of the foundation of the fort. It was deserted about 1200, and shortly afterwards the present town was founded. Mythological tradition avers that Kundinpur, the residence of the king Bhishmak, the father-in-law of the demi-god Krishna, stood on the old site. The soil around it is very fertile and large crops are raised by irrigation. The name is said to have been derived from a woman of the Chāran caste called Kunti; Kutiyāna has always been famous for its bards and poets. A fair lasting for two days is held at the temple of Nāgnāth Mahādeo on the 7th and 8th of the dark half of the month of Shrāvan (August).

Lāthi Town.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 21° 43′ N. and 71° 28′ E., on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway. Popu-

lation (1901), 5,997. It contains a dispensary, and is well supplied with public offices.

Limbdi Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 22° 34′ N. and 71° 53′ E., on the north bank of the Bhogāva river, 14 miles south-east of Wadhwān and 90 miles north-west of Bhaunagar. Population (1901), 12,485. It was formerly fortified. It is a railway station on the branch between Bhaunagar and Wadhwān of the Bhavnagar-Gondal-Junāgarh-Porbandar Railway. The town contains a dispensary and a library. The old palace in which the Thākur Sāhib lived was destroyed by fire in 1906, when several lives were lost and damage was done to the amount of about 8 lakhs.

Mahuva.—Town and port in the State of Bhaunagar. Kāthiāwār, Bombay, situated in 21° 5′ N. and 71° 40′ E, Population (1901), 17,549. The fort is 2 miles from the mouth of the bay, the east side of which is formed by an island known on this side as Jegri or Jigi Bluff, with a 2 fathoms shoal extending for nearly a mile. North of this shoal the water is deep. The town is 2 miles to the north of the port and is a large place, having several buildings and a temple. Good water may be had at a well on Jegri island. In the neighbourhood is a large swamp extending for several miles to the north-east. The islands that front this swamp are about 60 feet high and form a continuous line from the bay to Kutpur Bluff, 12 miles distant from Jegri. Mahuva, the ancient name of which was Moherak, stands on the Mālan river, 55 miles south-west of Bhaunagar. The town contains a cotton-press, and is the scene of four annual fairs attended by about 5,000 people. On Jegri Bluff is a lighthouse, 99 feet high, with a fixed white catadioptric light of the fourth order visible for 13 miles. The soil of Mahuva is very fruitful, and the mangoes grown here rival those of Bombay. The betel-vine is also cultivated. Coco-nut palms are plentiful. Mahuva merchants are generally both wealthy and enterprising. The principal export trade is in cotton sent to Bombay. There are good turners, who manufacture cots or *dholias*, cradles, and many kinds of wooden toys.

Māngrol (*Mangarol Bandar*, apparently the *Monoglossum* of Ptolemy).—Seaport in the State of Junāgarh, Kāthiāwār, Bombay, situated in 21° 8′ N. and 70° 14′ E., on the south-west coast, a mile and a half north-east from the *bandar*, which is washed by the Arabian Sea. Population (1901), 15,016. The mosque here is the finest in Kāthiāwār. A tablet in one part

of the building records the date of its foundation as 1383. The town belongs to a petty Musalmān chief, styled the Shaikh of Māngrol, who pays a tribute of Rs. 11,500 to the Nawāb of Junāgarh. The harbour is much exposed, being open to all but north-east and north-west winds, and will not admit more than three or four *kotiyehs* or native vessels at a time. Soundings are regular, over a muddy but rocky bottom, from one to one and a half mile off shore. There is a manufacture of ivory and sandal-wood inlaid boxes, and the ironsmiths are famous for their skill. The musk-melons grown here are celebrated. A lighthouse, 75 feet above high-water mark, shows a fixed light visible 4 miles at sea. The shrine of Kāmnāth Mahādeo, situated about 5 miles from the town, is visited annually on the 15th of the bright half of the month of Kārtik (November) and on the last day of the dark half of the month of Shrāvan (August). There is a well at a distance of about 200 yards. The land surrounding this well forms a tract of about 5 or 6 miles in circumference, and is called Lābur Kua. Excellent cotton is grown here, which finds a ready sale in the Bombay market. Betel-vine plantations have been in existence for about thirty years.

Morvi Town (*Morbi*).—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 22° 49′ N. and 70° 53′ E., on the west bank of the Machhu river, which 22 miles farther north enters the Gulf of Cutch. Population (1901), 17,820. Morvi is the terminus of the Morvi State Railway, 35 miles distant from Rājkot. Old Morvi, said to have been founded by Mor Jethwa, is situated on the eastern bank of the river, about a mile from the present town. It was called Mordhvajpuri and afterwards Bhimor. The present town is said to derive its name from the Morbo hill where Sanghjī Jethwa defeated a Vāghela Rānā, and in commemoration of his conquest founded the present town on the opposite bank of the river to Mordhvajpuri. Afterwards, when Mordhvajpuri became waste in the wars of the end of the fifteenth and beginning of the sixteenth century, most of the wealthy inhabitants removed their dwellings to the present site in order to place the river between them and the foreign invader. A made road connects Morvi with the port of Vavānia and the town of Tankāra. The town contains a public park and a library, and several fine buildings.

Muli Town.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 22° 38′ N. and 71° 30′ E., 13 miles south-west of Wadhwān on the Bhogāva river. Popu-

lation (1901), 5,455. It is famous for its saddle-cloths. Muli contains a temple of the Swāmi Nārāyan sect, founded by the Ponwārs and named after a Rabāri woman. There is also a temple of the Sun, which is worshipped here under the name of Māndav Rai.

Navānagar Town (or Jāmnagar).—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 22° 26′ N. and 70° 16′ E., 310 miles north-west of Bombay and 5 miles east of the port of Bedi. Population (1901), 53,844, of whom Hindus numbered 32,005; Musalmāns, 17,027; and Jains, 4,621. The town was founded by Jām Rāwal in 1540. It is almost entirely built of stone, and is surrounded by a fort erected in 1788. Navānagar is a flourishing place, nearly 4 miles in circuit, with a large trade. In the sea, north of the town, are some beds of pearl oysters; but the pearls are of inferior quality and the fishery appears to be mismanaged. The out-turn realizes about Rs. 4,000 annually. The town is also known for silken and gold embroidery, for incense and perfumed oils, and for the *kanku* or red powder which is used to make the sectarian mark on the forehead of Hindus. The value of the imports at Bedi in 1903–4 was 17·2 lakhs, and of the exports 5·3 lakhs. The dyeing is famous, and the water of the Rangmati river is supposed to be especially favourable to this industry. The climate is pleasant, and the palaces of Kotha, Lakhota, &c., are very picturesque. Large quantities of plantains are grown in the Navānagar gardens. Near by is the tomb of Jasa Lādhak. The town possesses a clock-tower and a vegetable market.

Pālitāna Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 21° 31′ N. and 71° 53′ E., at the eastern base of the famous Shetrunja (Satrunjaya) hill; distant from Ahmadābād 120 miles south-west, and from Bombay 190 north-west. Population (1901), 12,800. It was formerly the chief town of a Mughal *pargana*.

Shetrunja hill, to which reference has been made in the article on PĀLITĀNA STATE, is sacred to Adināth, a Tīrthankar or hierarch of the Jains. It is 1,977 feet above sea-level. The top is divided into two peaks, but the valley between has been partly built over by a wealthy Jain merchant. The entire summit is covered with temples, among which the most famous are those of Adināth, Kumār Pāl, Vimalasah, Sampriti Rājā, and the Chaumukh. This last is the most lofty, and can be clearly distinguished at a distance of over 25 miles. Shetrunja is the most sacred of the five sacred hills of the Jains.

Mr. Kinloch Forbes in the *Rās Māla* describes it as the 'first of all places of pilgrimages, the bridal hall of those who would win everlasting rest'; and adds:—

'There is hardly a city in India, through its length and breadth, from the river of Sind to the sacred Ganges, from Himālaya's diadem of ice peaks to the throne of his virgin daughter, Rudra's destined bride, that has not supplied at one time or other contribution of wealth to the edifices which crown the hill of Pālitāna. Street after street, square after square, extend these shrines of the Jain faith, with their stately enclosures, half-palace, half-fortress, raised in marble magnificence upon the lonely and majestic mountain, and, like the mansions of another world, far removed in upper air from the ordinary tread of mortals.'

Owing to the special sanctity of Shetrunja, Jains from all parts of India are anxious to build temples on the hill; and all members of the Jain faith feel it a duty to perform, if possible, one pilgrimage here during their life.

The following description of this wonderful temple-hill is condensed from an account by Dr. Burgess:—

'At the foot of the ascent there are some steps with many little canopies or cells, a foot and a half to three feet square, open only in front, and each having in its floor a marble slab carved with the representation of the soles of two feet (*charana*)—very flat ones, and generally with the toes all of one length. A little behind, where the ball of the great toe ought to be, there is a diamond-shaped mark divided into four smaller figures by two cross lines, from the end of one of which a waved line is drawn to the front of the foot. Round the edges of the slab there is usually an inscription in Devanāgarī characters, and between the footmarks an elongated figure like a head of Indian corn with the point slightly turned over. These cells are numerous all the way up the hill, and a large group of them is found on the south-west corner of it behind the temple of Adiswar Bhagwān. They are the temples erected by poorer Shrāwaks or Jains, who, unable to afford the expense of a complete temple, with its hall and sanctuary enshrining a marble *mūrti* or image, manifest their devotion to their creed by erecting these miniature temples over the *charana* of their Jinas or Arhats.

'The path is paved with rough stones all the way up, only interrupted here and there by regular flights or steps. At frequent intervals also there are resthouses, more pretty at a distance than convenient for actual use, but still deserving of attention. High up we come to a small temple of the Hindu monkey-god Hanumān, the image bedaubed with vermilion in ultra-barbaric style. At this point the path bifurcates—to the right leading to the northern peak, and to the left to the valley

between, and through it to the southern summit. A little higher up, on the former route, is the shrine of Hengar, a Musalmān *pīr*, so that Hindu and Moslem alike contend for the representation of their creeds on this sacred hill of the Jains.

'On reaching the summit of the mountain the view that presents itself from the top of the walls is magnificent in extent: a splendid setting for the unique picture—this work of human toil we have reached. To the east, the prospect extends to the Gulf of Cambay near Gogha and Bhaunagar; to the north it is bounded by the granite range of Sihor and the Chamārdi peak; to the north-west and west the plain extends as far as the eye can reach, except where broken due west by the summits of Mount Girnār—revered alike by Hindu, Buddhist, and Jain, the latter of whom claim it as sacred to Neminăth, their twenty-second Tīrthankar. From west to east, like a silver ribbon across the foreground to the south, winds the Shetrunji river, which the eye follows until it is lost between the Talāja and Khokara hills in the south-west. But after this digression let us return to the scene beside us. How shall I describe it? It is truly a city of temples, for, except a few tanks, there is nothing else within the gates, and there is a cleanliness withal, about every square and passage, porch and hall, that is itself no mean source of pleasure. The silence, too, is striking. Now and then in the mornings you hear a bell for a few seconds, or the beating of a drum for as short a time, and on holidays chants from the larger temples meet your ear; but generally during the after-part of the day the only sounds are those of vast flocks of pigeons that rush about spasmodically from the roof of one temple to that of another, apparently as an exercise in fluttering and just to keep their wings in use. Parroquets and squirrels, doves and ring-doves abound, and peacocks are occasionally met with on the outer walls. The top of the hill consists of two ridges, each about 350 yards long, with a valley between; the southern ridge is higher at the western end than the northern, but this is in turn higher at the eastern extremity. Each of these ridges, and the two large enclosures that fill the valley, are surrounded by massive battlemented walls fitted for defence. The buildings on both ridges, again, are divided into separate enclosures, called *tūks*, generally containing one principal temple, with varying numbers of smaller ones. Each of these enclosures is protected by strong gates and walls, and all gates are carefully closed at sundown.'

A description of one of these *tūks* must suffice here, but the reader who wishes to pursue the subject will find an account of the other temples in Mr. Burgess's *Notes of a Visit to Satrunjaya Hill* (Bombay, 1869). The *tūk* now to be described is that of Khartarvasi, of which the principal temple is

that of the Chaumukh or 'four-faced' Jaina occupying the centre.

'It is,' says Mr. Burgess (*op. cit.*), 'a fine pile of the sort, and may be considered a type of its class. It stands on a platform raised fully 2 feet above the level of the court, and 57 feet wide by about 67 in length, but the front of the building extends some distance beyond the end of this. The body of the temple consists of two square apartments, with a square porch or *mandap* to the east, from which a few steps ascend to the door of the *antarāla* or hall, 31 feet square inside, with a vaulted roof rising from twelve pillars. Passing through this we enter by a large door into the shrine or *garbha griha*, 23 feet square, with four columns at the corners of the altar or throne of the image. Over this rises the tower or *vimāna* to a height of 96 feet from the level of the pavement. The shrine in Hindu temples is always dark and entered only by the single door in front. Jain temples, on the contrary, have very frequently several entrances. In this instance, as in that of most of the larger temples, besides the door from the *antarāla*, three other large doors open out into porticoes on the platform—a veranda being carried round this part of the building from one door to another. The front temple has also two side doors opening upon the platform. The walls of the shrine, having to support the tower, are very thick, and contain cells or chapels opening from the veranda; thus the doors into the shrine stand back into the wall. There are ten cells and some of them contain little images of Tīrthankars; those at the corners open to two sides. The pillars that support the veranda deserve notice. They are of the general form everywhere prevalent here—square columns, to the sides of which we might suppose very thin pilasters of about half the breadth had been applied. They have high bases, the shafts carved with flower patterns each different from its fellow, the usual bracket capitals slanting downwards on each side and supporting *gopis*, on whose heads rest the abacus—or rather these figures, with a sort of canopy over the head of each, form second and larger brackets. The floors of the larger temples are of beautifully tesselated marble—black, white, and yellowish brown. The patterns are very much alike, except in details, and consist chiefly of varieties and combinations of the figure called by the Jains *nandvarta*—a sort of complicated square fret—the cognizance of the eighteenth Jina. The shrine contains a *sinhāsan* or pedestal for the image; in this temple it is of the purest white marble, fully 2 feet high and 12 square. Each face has a centre panel, elaborately carved, and three of less breadth on each side, the one nearer the centre always a little in advance of that outside it.

'On the throne sit four large white marble figures of Adināth, not especially well proportioned, each facing one of the doors of the shrine. These are large figures, perhaps as large as any

on the hill; they sit with their feet crossed in front, after the true Buddha style, the outer side of each thigh joining that of his fellow, and their heads rising about 10 feet above the pedestal. The marble is from Mokhrano in Mārwār, and the carriage is said to have cost an almost incredible sum. The aspect of these, and of all the images, is peculiar; frequently on the brow and middle of the breast there is a brilliant, set in silver or gold, and almost always the breasts are mounted with one of the precious metals, while there are occasionally gold plates on the shoulders, elbow, and knee-joint, and a crown on the head—that on the principal one in the Motisah being a very elegant and massive gold one. But the peculiar feature is the eyes, which seem to peer at you from every chapel like those of so many cats. They appear to be made of silver overlaid with pieces of glass, very clumsily cemented on, and in every case projecting so far, and of such a form, as to give one the idea of their all wearing spectacles with lenticular glasses over very watery eyes in diseased sockets.

'The original temple in this *tūk* is said to date back to a king Vikrama; but whether he of the Samvat era, 57 B.C., or Harsha Vikramāditya, about A.D. 500, or some other, is not told. It appears to have been rebuilt in its present form about A.D. 1619 by Seva Somjī of Ahmadābād, for we read thus: "Samvat 1675, in the time of Sultān Nūr-ud-dīn Jahāngīr, Sawāi Viyaja Rājā, and the princes Sultān Khushru and Khurma, on Saturday, Baisākh Sudi 13th, Devrāj and his family, of which were Somjī and his wife, Rājāldevī, erected the temple of the four-faced Adināth," &c. A stair on the north side leads to the upper storey of the tower. This temple is said to contain a hundred and twenty-five images.'

Fergusson, in his *History of Indian and Eastern Architecture*, has the following remarks on the Jain temple-cities, with special reference to this the greatest of them all:—

'The grouping together of their temples into what may be called "cities of temples" is a peculiarity which the Jains practised to a greater extent than the followers of any other religion in India. The Buddhists grouped their *stūpas* and *vihāras* near and round sacred spots, as at Sānchī, Manikyāla, or in Peshāwar, and elsewhere; but they were scattered, and each was supposed to have a special meaning, or to mark some sacred spot. The Hindus also grouped their temples, as at Bhuvaneswar or Benares, in great numbers; but in all cases, so far as we know, because these were the centres of a population who believed in the gods to whom the temples were dedicated, and wanted them for the purpose of their worship. Neither of these religions, however, possesses such a group of temples, for instance, as that at Satrunjaya, or Pālitāna as it is usually called, in Gujarāt. No survey has yet been made of it, nor have its temples been counted; but it covers a large space

of ground, and its shrines are scattered by hundreds over the summits of two extensive hills and the valley between them. The larger ones are situated in *tūks* or separate enclosures, surrounded by high fortified walls; the smaller ones line the silent streets. A few *vatis* or priests sleep in the temples and perform the daily services, and a few attendants are constantly there to keep the place clean, which they do with the most assiduous attention, or to feed the sacred pigeons, who are the sole denizens of the spot; but there are no human habitations properly so called within the walls. The pilgrim or the stranger ascends in the morning and returns when he has performed his devotions or satisfied his curiosity. He must not eat, or at least must not cook, his food on the sacred hill, and must not sleep there. It is a city of the gods, and meant for them only, and not intended for the use of mortals.

'Jain temples and shrines are, of course, to be found in cities where there are a sufficient number of votaries to support a temple, as in other religions; but beyond this, the Jains seem, almost more than any other sect, to have realized the idea that to build a temple, and to place an image in it, was in itself a highly meritorious act, wholly irrespective of its use to any of their co-religionists. Building a temple is with them a prayer in stone which they conceive to be eminently acceptable to the deity, and likely to secure them benefits both here and hereafter.

'It is in consequence of the Jains believing to a greater extent than the other Indian sects in the efficacy of temple-building as a means of salvation that their architectural performances bear so much larger a proportion to their numbers than those of other religions. It may also be owing to the fact that nine out of ten, or ninety-nine in a hundred, of the Jain temples are the gifts of single wealthy individuals of the middle classes, that these buildings generally are small and deficient in that grandeur of proportion that marks the buildings undertaken by royal command or belonging to important organized communities. It may, however, be also owing to this that their buildings are more elaborately finished than those of more national importance. When a wealthy individual of the class who build these temples desires to spend his money on such an object, he is much more likely to feel pleasure in elaborate detail and exquisite finish than in great purity or grandeur of conception.

'All these peculiarities are found in a more marked degree at Pālitāna than at almost any other known place, and, fortunately for the student of the style, extending through all the ages during which it flourished. Some of the temples are as old as the eleventh century, and they are spread pretty evenly over all the intervening period down to the present century. But the largest number, and some of the most important, are now in course of erection, or were erected in the present

century, or in the memory of living men. Fortunately, too, these modern examples by no means disgrace the age in which they are built. Their sculptures are inferior, and some of their details are deficient in meaning and expression; but, on the whole, they are equal, or nearly so, to the average examples of earlier ages. It is this that makes Pālitāna one of the most interesting places that can be named for the philosophical student of architectural art, inasmuch as he can there see the various processes by which cathedrals were produced in the Middle Ages, carried on on a larger scale than almost anywhere else, and in a more natural manner. It is by watching the methods still followed in designing buildings in that remote locality that we become aware how it is that the uncultivated Hindu can rise in architecture to a degree of originality and perfection which has not been attained in Europe since the Middle Ages, but which might easily be recovered by following the same processes.'

Porbandar Town.—Chief town and port of the State of the same name in Kāthiāwār, Bombay, situated in 21° 37′ N. and 69° 48′ E., on the shore of the Arabian Sea, and the terminus of the railway from Rājkot. Population (1901), 24,620, including 17,862 Hindus, 5,566 Musalmāns, and 1,113 Jains. Though a bar prevents the entrance of ships of any great size into the port, it is much frequented by craft of from 12 to 80 tons burden. In spite of the levy of heavy customs dues, and the competition of other ports, commerce is considerable, including, besides a local traffic with the Konkan and Malabar, a brisk trade with the ports of Sind, Baluchistān, the Persian Gulf, Arabia, and the east coast of Africa. In 1903–4 the imports were valued at 17½ lakhs and the exports at 25 lakhs. At a little cost the port might be made one of the most secure on the Kāthiāwār sea-board. The town is entirely built of stone, and was surrounded by a fort which was demolished during British administration. It is said to have been called in ancient times Sudāmāpuri, and it has been the Jethwa capital since about 1785. Telephonic connexions are laid throughout the town, which contains nine public gardens, the chief of which is the Rājwādi with an income of Rs. 3,000. The sea-face is provided with a light-house 90 feet high, showing a dioptric light of the fourth class, visible for 15 miles at sea. The town possesses several fine public buildings.

Rājkot Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 22° 18′ N. and 70° 50′ E., at the junction of the Bhavnagar-Gondal-Junāgarh-Porbandar, the Jāmnagar, and the Morvi Railways. Population (1901),

36,151, including the civil and military stations. Hindus numbered 25,927; Musalmāns, 6,637; and Jains, 3,071. Rājkot is the residence of the Agent to the Governor in Kāthiāwār, and contains several central institutions. Among these is the Rājkumār College, which owed its inception to the foresight of Colonel Keatinge, V.C., Political Agent from 1863 to 1867, and was opened by Sir Seymour FitzGerald, Governor of Bombay, in 1870, and for many years presided over by the late Mr. Chester MacNaghten. This institution provides a suitable education and training not only for the sons of chiefs of Kāthiāwār but also for cadets of other States in the Bombay Presidency. The college itself is a fine building in the Venetian Gothic style, amply equipped with a gymnasium, a racquet court, a rifle range, and a cricket pavilion. The Jubilee Memorial Institute, an imposing building consisting of the Connaught Hall, the Lang Library, and the Watson Museum, is situated in a picturesque public garden. The Rasūlkhānjī Hospital for Women and Children, built at the expense of the Nawāb of Junāgarh, and maintained jointly by the chiefs of Kāthiāwār, is a well-equipped institution in charge of a European lady doctor. The West Hospital, built conjointly by Government and the chiefs of Kāthiāwār, is a fully equipped hospital in charge of the Agency Surgeon, who has at his disposal the services of a qualified Assistant Surgeon and a trained English nurse. The Male Training College and the Barton Female Training College are also maintained by the chiefs of Kāthiāwār. In the military limits are a church and a clock-tower, the latter built by the late Jām of Navānagar. In the civil station are the lines of the Kāthiāwār Agency police, and the Rājkot Central prison. In the neighbourhood are the Rājkot State stud farm and dairy, and two large artificial tanks which supply Rājkot with water and also irrigate a few square miles of country. There is one cotton-ginning factory in Rājkot, but the principal trade is in grain and a local building stone. The Aji river, which washes the walls of the town, is spanned by two bridges and an aqueduct. The bridge used for foot traffic was built by the late Mahārājā of Bhaunagar. The high school was attended in 1903–4 by 293 pupils. The Irish Presbyterian Mission has a central station here. The income of the cantonment funds in 1903–4 was Rs. 1,714.

Rājula.—Town in the State of Bhaunagar, Kāthiāwār, Bombay, situated in 21° 3′ N. and 71° 30′ E. Population (1901), 5,150. Rājula has for many years been a centre of local trade,

and its building stone is largely used in the State. About 8 miles north-east of the town is the striking hill of Bābariādhār, crowned by a rude stone fort, which half a century ago was a favourite haunt of lions. The exports consist chiefly of cotton and building stone, and the imports of grain, timber, and piece-goods.

Sāyla Town.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 22° 32′ N. and 71° 32′ E., 16 miles from the Chuda railway station, 18 miles south-west of Wadhwān, on the bank of a large tank called Mānasarowar, the excavation and building of which is popularly attributed to Sidhrāj Jai Singh, the celebrated sovereign of Anhilvāda. Population (1901), 5,367. Sāyla is famous for the temple of Rāmchandra, built by Lālā Bhagat, a Baniyā saint who flourished in the beginning of the last century. Food is distributed daily to travellers, ascetics, and others. There is a brisk trade in cotton and grain.

Sihor.—Town in the State of Bhaunagar, Kāthiāwār, Bombay, situated in 21° 43′ N. and 72° E., on the Bhavnagar-Gondal Railway, about 13 miles west of Bhaunagar town, and on the slope of the Sihor range of hills. Population (1901), 10,101. The name is a corruption of Singhpur, 'the lion city.' A still more ancient name is Sāraswatpur. It formed a capital of the Bhaunagar branch of the Gohel Rājputs until Bhaunagar town was founded in 1723. The old site of the city is about half a mile to the south. Sihor is famous for its copper- and brass-work, snuff, and plaster (*chunām*). The dyers are numerous and skilful, and dye women's scarves (*sādlas*) with various colours, but they are especially famous for their chocolate dye. Sihor is also a great place for oil-pressers. Near the southern wall of the town is situated the Brahmakund, the water of which possesses special virtues for bathers. Farther up the Gautami river lie the Gautamikund and Gautameshwar Mahādeo. The Sihor stone found in the Rānio hill is much used for building.

Somnāth (Deo Pattan, Prabhās Pattan, Verāval Pattan, or Pattan Somnāth).—Ancient town in the State of Junāgarh, Kāthiāwār, Bombay, situated in 20° 53′ N. and 70° 28′ E., at the eastern extremity of a bay on the south coast of the peninsula of Kāthiāwār. Population (1901), 8,341. The western headland of the bay is occupied by the port of Verāval, which gives to the locality its more common name of Verāval Pattan. On the edge of the sea, nearly half-way between the two towns, stands a large and conspicuous temple, dedicated to

Siva. A few hundred yards behind this temple is the reservoir called the Bhatkund, the traditional scene of the death of Krishna. Farther inland rises the wild hill district called the Gīr, and in the remote distance stands out the sacred mountain which the people of Kāthiāwār delight to call the 'royal Girnār.' The country near Somnāth is full of memorials of Krishna, the principal centre of interest being a spot to the east of the town, where, near the union of three beautiful streams, the body of the hero is said to have been burnt.

Somnāth is a gloomy place—a city of graves and ruins. On the west the plain is covered with Musalmān tombs, on the east are numerous Hindu shrines and monuments. The town was protected on the south by a fort, and on the remaining three sides by a deep trench cut out of the solid rock. The fort, situated on the shore within a few feet of high-water mark, does not depart in any important particular from the general design of Gujarāt fortresses. It is square in form, with large gateways in the centre of each side, outworks or barbicans in front of these, and second gateways in the sides of the outworks. Somnāth is now especially famous for the manufacture of door-locks made of wood and iron. It is the head-quarters of a *mahāl* or revenue division, with the courts of revenue and judicial officers. Though some wealthy bankers and merchants reside here, the moneyed classes have mostly betaken themselves to the neighbouring port of Verāval.

Before its capture by Mahmūd of Ghazni (1024-6), little is known of the history of Somnāth. In the eighth century this part of Kāthiāwār is said to have been in the hands of a line of Rājput princes bearing the surname of Chāvada. These chiefs probably owned allegiance to powerful Chālukyas or Solankis, who reigned at Kalyān in the Deccan. Mahmūd of Ghazni, after his invasion, left behind him a Muhammadan governor at Somnāth. Subsequently the Vajās (a sub-branch of the Rāthor tribe) acquired Somnāth and revived the glories of the ancient fane. But it was again overthrown by Ulugh in 1298. From this date Muhammadan supremacy prevailed. Afterwards, on the downfall of the Muhammadan power, Somnāth was ruled at different times by the Shaikh of Māngrol and the Rānā of Porbandar, but was finally conquered by the Nawāb of Junāgarh, in whose hands it remains.

Thān.—Village in the State of Lakhtar, Kāthiāwār, Bombay, situated to the north of the main road from Wadhwān to

Rājkot. Population (1901), 1,327. The village is surrounded by a fort. It is interesting for its traditions rather than for the few antiquarian remains now existing. The following description of the place is condensed from an account supplied by Major J. W. Watson :—

Thān is one of the most ancient places in India, and the whole of the neighbourhood is holy ground. Thān itself derives its name from the Sanskrit *sthān*, 'a place,' as though it were *the* place, hallowed above all others by the residence of devout sages, by the magnificence of its city, and by its propinquity to famous shrines, such as that of Trineteshwara, now called Tarnetar, the famous temple of the Sun at Kandola, and those of the Snake brethren Vāsuki and Banduk, now known as Wāsangi and Bāndia Beli respectively.

Thān is situated in the part of Surāshtra (Kāthiāwār) known as the Deva Pānchāl—so called, it is said, from having been the native country of Draupadi, the wife of the five Pāndava brothers, from which circumstance she was called Pānchāli; and because it is peculiarly sacred it is called the Deva Pānchāl. Nor is Thān famous in local tradition alone. One of the chapters of the Skanda Purāna is devoted to Trineteshwara and the neighbourhood, and this chapter is vulgarly called the Thān Purāna or Tarnetar Māhātmya. Here we learn that the first temple to the Sun was built by Rājā Māndhātā in the Satya Yug. The city is said then to have covered many square miles, and to have contained a population of 36,000 Brāhmans, 52,000 Vaisyas, 72,000 Kshattriyas, and 90,000 Sūdras, in all 250,000.

In 1690 Kārtalab Khān, viceroy of Gujarāt, stormed the town and levelled the old temple. The present temple is built on the former site. Thān was visited also by Krishna and his consort Rukmini, who bathed in the two tanks near the town, whence one has been called Pritam, a contraction from *priyatam*, 'the beloved,' after Krishna, so named as being the beloved of the Gopīs; and the other Kamala, after Lakshmī, whose symbol is the *kamala* or lotus blossom. The central fortress was called Kandola, and here was the celebrated temple of the Sun. Immediately opposite to Kandola is another hill, with a fort called in more recent times Songarh; and another large suburb was named Māndva. Within a few miles was the shrine of the three-eyed god Trineteshwara, one of the appellations of Siva; and close to this, the celebrated *kund*, by bathing in which all sins were washed away. This tank was called the Pāpnāshan or 'sin-

expelling,' as the forest in which it was situated was called the Pāpanodanu-vana, or the 'forest of the sin-destroyer.' Close to Thān are the Māndhav hills, distinguished by this name from the rest of the Thānga range of which they form a part; and the remains of Māndhavgarh, such as they are, may be seen close to the shrine of Bāndia Beli, the modern name of Banduk, one of the famed Snake brethren.

An account of the remains at present existing will be found in Dr. Burgess's *Archaeological Survey of Western India*.

Una-Delvāda.—Twin towns in the State of Junāgarh, Kāthiāwār, Bombay, situated in 20° 49′ N. and 71° 5′ E., on the bank of the Machundri river. The population of Una in 1901 was 6,628. The ancient town of Una was called in Sanskrit Unat Drug ('the lofty fortress'), and was situated close to the present town, which was then known under the name of Delvāda. Hence Una and Delvāda were almost synonymous. In former times Una-Delvāda was ruled by Unevāl Brāhmans; but on their offering an affront to the bride of Vejal Vājo, the latter stormed the town and put many of the inhabitants to the sword. As Unat Drug had become defiled by the slaying of Brāhmans, the population moved into the adjacent town of Delvāda, which was hereafter called Una. Afterwards, when Una had fallen under Muhammadan rule, a new town was founded about 3 miles south of Una; and to this town the old name of Delvāda was given. Under the Sultāns of Gujarāt, Una and Delvāda were of much importance, from their proximity to the island fortress of Diu, from which Delvāda is about 4 miles and Una 7 miles distant.

Upleta.—Town in the State of Gondal, Kāthiāwār, Bombay, situated in 21° 44′ N. and 70° 20′ E., on the western bank of the Moj river, 19 miles north-west of Junāgarh. Population (1901), 9,429. Upleta is a wealthy town, second only to Dhorājī and Gondal in the Gondal State, and has a Darbār palace. The town is connected with Dhorājī by a good made road. It also has a railway station on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway.

Vala Village.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 21° 52′ N. and 71° 57′ E., about 22 miles north-west of Bhaunagar, 16 miles north of Songarh civil station, and 12 miles from Dhola junction railway station. Population (1901), 4,712. The ancient name of Vala was Vallabhipur; and it was from this spot that the dynasty, founded by the Senāpati of the Guptas, swayed for a period of three hundred years the destinies of the Kāthiāwār

peninsula. Previous to the foundation of Vallabhi, the official capital had always been Vāmansthali (Vanthli), as the religious capital had been Pātan Somnāth. Not much is known about the Vallabhi kings, save what can be gleaned from their copperplate grants; but these show them to have reigned, roughly speaking, from about A.D. 480 to 790, when their capital was sacked, and their dynasty overthrown by foreign invaders. There are but few architectural remains at Vala. The houses appear to have been built principally of mud, but some are of brick. Old foundations are constantly dug up even at the present day. Coins and copperplates are found, as well as clay seals, beads, and small household images. But there do not appear to have been any large or imposing buildings in stone; or if there were, all trace of them has disappeared. There is no great trade at Vala. The principal exports are wheat and cotton, while sugar, cloth, timber, and grain are the chief imports.

Verāval (*Velāvan*, formerly Verrole).—Port and town in the State of Junāgarh, Kāthiāwār, Bombay, situated in 20° 53′ N. and 70° 26′ E., and the terminus of the Jetalsar-Verāval branch of the Bhavnagar-Gondal-Junāgarh-Porbandar Railway. Population (1901), 16,775. The Devka or Devika river flows north and west of Verāval, entering the sea near the temple of Jateshwar Mahādeo. A considerable trade is carried on with Maskat, Karāchi, and Bombay. In 1903–4 the value of the imports was 3 lakhs, and that of the exports 3·8 lakhs. The port has lately been much improved, and supplies are plentiful. The boat anchorage is partially protected from north-west winds by a rocky spit running out from the outer bastion of the town, but the bottom is rocky inside of 11 fathoms The coast east of Verāval is low and sandy for 4 or 5 miles. The port shows a white light, visible for 10 miles at sea.

Wadhwān Town.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 22° 42′ N. and 71° 44′ E., at the junction of the Kāthiāwār railways with the Bombay, Baroda, and Central India Railway. Population (1901), 16,223, including 10,902 Hindus, 3,507 Jains, and 1,699 Musalmāns. Wadhwān is fortified; and the chief's palace, an imposing building when seen at a distance, occupies a commanding position in the southern portion of the town. It is a local centre of the cotton trade, and has a wealthy community of merchants. A large import trade is also carried on in grain, *ghī*, and cotton stuffs. Excellent soap manufactured here is used throughout Kāthiāwār, and

is also exported to Gujarāt. The native saddles and horse furniture generally are of local fame. The stone-cutters and quarrymen are also skilled workmen. Wadhwān town was founded in very ancient times. It has acquired its modern importance from being the junction of the Wadhwān branch of the Bombay, Baroda, and Central India Railway with the Bhavnagar-Gondal line. The former was converted from broad to narrow gauge from Viramgām to Wadhwān in 1902, allowing the peninsula the benefit of through traffic with the whole of Northern India by the Rājputāna-Mālwā Railway. The Wadhwān civil station, where the Political Agent, Jhālawār *prānt*, and other officials reside, is about 3 miles west of Wadhwān town, 66 miles north-east of Rājkot, and 104 miles north-west of Bhaunagar. The ground on which the station is built is leased from the Wadhwān Darbār and the Dudhrej *girāsiās*. Among public buildings are a clock-tower, a cotton market, grain and vegetable markets, and a *tālukdāri* school where the sons of *girāsiās*, who are unable to afford the expense of the Rājkumār College, can obtain education. The population of the civil station in 1901 was 11,255. Wadhwān has a cotton-mill.

Wānkāner Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 22° 36′ N. and 71° 2′ E., on the Wadhwān-Rājkot Railway. It is very picturesquely placed in a commanding position at the junction of the Patalio Voklo and Machhu rivers, by which it is surrounded on every side except the east. Population (1901), 6,973. The town is locally famous for the manufacture of cotton cloth, such as scarves, waist-cloths, &c., and also for locks and shoes. The principal exports are cotton cloth, *ghī*, which is usually sent to Rājkot, and a small quantity of grain and raw cotton; the imports are metals, timber, and cloth of English manufacture.

Vanthli.—Town in the Sorath *prānt* of Kāthiāwār, Bombay, situated in 21° 28′ N. and 70° 22′ E., about 9 miles west-south-west of Junāgarh. Population (1901), 7,726. Vanthli is famous for its copper- and ironwork. The modern name is said to have been corrupted from the ancient Wāmansthali, or the 'abode of Waman.' The town was also known as Wāmanpur and Wāmandhām, and was sometimes called Deosthali, which is corrupted into Dethali.

Pālanpur Agency.—A group of States in Gujarāt, lying between 23° 25′ and 24° 41′ N. and 71° 16′ and 72° 46′ E., in the extreme north of the Bombay Presidency proper, with an

area of 6,393 square miles. It is bounded on the north by the Udaipur and Sirohi States of Rājputāna; on the east by the Mahī Kāntha Agency; on the south by the State of Baroda and by Kāthiāwār; and on the west by the Rann of Cutch. The head-quarters of the Agency are at PĀLANPUR TOWN.

GENERAL STATISTICS FOR EACH STATE IN THE PĀLANPUR AGENCY

State.	Caste, tribe, or race of the ruling chief.	Area in square miles (approximate).*	Number of villages.	Population, 1901.	Revenue (1903-4). From land.	Revenue (1903-4). Total.	Tribute. Amount.	Tribute. To whom payable.
1st Class States.					Rs.	Rs.	Rs.	
Pālanpur	Muhammadan, Pathān.	1,766	511	222,627	2,10,094	7,29,199	38,461	Gaikwār.
Rādhanpur	"	1,150	160	61,548	2,70,668	5,28,658	—	—
4th Class State.								
Tharād	Vāghela Rājput.	940	157	49,264	19,879	51,257	—	—
5th Class State.								
Vāv	Chauhān Rājput.	380	25	8,286	2,440	11,647	566 †	Mārwār Rāj.
Jurisdictional Tālukas not classified.								
Malek Jorāwar Khān	Muhammadan.	Included in *Thāna* Circles.	10	Included in *Thāna* Circles.	‡	20,000	—	—
Thākurs of Thara	Vāghela Rājputs.		14		21,763	31,138	2,151	Gaikwār.
Vāghela Khānjī of Diodār.			12		3,514	5,293	—	—
Vāghela Chamansingh of Diodār.	"		13		5,419	7,552	—	—
Ravajī Lakhājī of Sāntalpur.	Thākur		1		2,000	2,000	—	—
Thāna Circles.								
Kānkrej	Kolī Thākurdas.	810	92	38,829	33,972	34,472	5,590	Gaikwār.
Diodār, including Tervāda and Bhābbar.	Rājputs, and Muhammadans in Tervāda.	364	114	31,107	40,000	42,485	—	—
Vārāhi	Muhammadan.	300	51	13,151	15,000	40,000	—	—
Vāv, including Suigām	Rājputs	377	53	19,330	17,855	18,107	—	—
Sāntalpur, including Chādchat.	"	303	39	12,082	15,175	15,175	—	—
Deesa Cantonment.	. . .	3	1	11,047	‡	‡	—	—
Total	. . .	6,393	1,253	467,271	6,57,779	15,36,983	46,768	

* Some of the figures of area in this column differ from those given in the *Census Report* of 1901, being based upon more recent and more correct information.
† Tribute varies. ‡ Not available.

Configuration and hill system.

For the most part the country is a sandy, treeless plain, with, in some places, rolling sandhills, and between them valleys of black clay. To the north and north-east, bordering on Sirohi, lies an extremely wild and picturesque tract, covered with rocks and forest-clad hill ranges, outliers from the Abu and Jāsor hills. Some of these hills are of considerable height; chief among them is Jāsor, about 3,500 feet above the sea, a hill of gneiss with outbursts of granite, situated about

18 miles north of Pālanpur town. Jāsor hill is well suited for a sanitarium, except that its water-supply is scanty.

Rivers.

The chief rivers are the Banās and Saraswatī. The Banās, rising in Dhebar Lake, among the hills of Udaipur, flows west past the town and cantonment of Deesa, and falls into the Rann of Cutch by two mouths. Except when in flood, the Banās may almost everywhere be forded. Its chief tributaries are the Sipu and Bālārām. It is not utilized for irrigation, though by building dams much of the water might be stored. The Saraswatī, a small but sacred stream, rising in the Mahī Kāntha hills, crosses the eastern corner of the Agency. Close to the hills the water is near the surface, but gradually sinks into the sandy western plains. Towards the Rann, water is especially scarce and brackish, and in this tract a year of scanty rainfall causes great hardship.

Geology and fauna.

The rocks are metamorphic gneiss and mica schist, with upheavals and outbursts of red and grey granite. The fauna do not differ materially from those found in the adjacent British Districts.

Rainfall and climate.

From March to June the heat is great, the thermometer in the shade rising to 113° in May; the hot winds are so fierce that they keep even the people of the country from travelling during the daytime. From September to November the country is unhealthy, both Europeans and natives suffering from fevers of a bad type. The cold in January, when the temperature falls to 50°, is at times very great, but it does not last long. The rains begin in July and are heaviest in August and September. The annual rainfall averages 30 inches at Pālanpur, 26 at Tharād, and 16 at Rādhanpur. Except in the hills, the Pālanpur States are liable to drought.

Natural calamities.

On December 15, 1882, an earthquake occurred, with minor shocks and rumbling noises at intervals of a few days, ceasing in April, 1883. The damage done to buildings was estimated at 1½ lakhs. In 1896–7 the plague broke out at Pālanpur, and since then the most seriously affected localities have been Pālanpur and Deesa cantonment. During the famine of 1899–1900 many cattle died in the Agency. The condition of the people has also been much reduced by the years of scarcity which followed that famine.

History.

The territory included in the Agency of Pālanpur has, like the more central parts of Gujarāt, passed during historical times under the sway of the different Rājput dynasties of Anhilvāda (746–1298), the early Khiljī and Tughlak Shāhi dynasties of Delhi (1297–1403), the Ahmadābād Sultāns

(1403–1573), the Mughal emperors (1573–1757), the Marāthās (1757–1819), and lastly the British. British connexion with Pālanpur dates from 1809, with Rādhanpur from 1813, and with the remaining States (except Kānkrej) from 1819. When much harassed with freebooting raids from Sind, the chiefs prayed the British Government to help them, offering to pay a share of the charges incurred in restoring order. The connexion of Kānkrej with the British Government dates from 1819–20, when the Mahī Kāntha Agency was formed. It continued part of Mahī Kāntha till, in 1844, on account of its nearness to Pālanpur, it was transferred to the Pālanpur Agency.

The State of Pālanpur, from which the Agency takes its name, is said to have been called Prahlādan Pātan, after a Ponwār conqueror, Prahlādan Deo, and to have been re-peopled in the fourteenth century by Pālansi Chauhān. Pālanpur and Deesa were conquered about 1600 by Afghāns of the Lohāni stock known as Jhāloris. This family, though it lost Jhālor in 1699, has held Pālanpur almost continuously until the present day. The State of Rādhanpur, once the property of the Vāghelas, and named after a Baloch, Rādhan Khān, was entrusted to the Bābi governor Jāfar Khān in 1693, and has remained with the Bābis since that date. Tharād, originally ruled by Chauhān Rājputs, was conquered by the Musalmāns at the end of the twelfth or early part of the thirteenth century, when the ruling family were relegated to Vāv, which they still hold. Passing in succession to the Jhāloris and the Bābis of Rādhanpur, Tharād was handed back in 1759 to the Vāghela Kānjī, chief of Morvāda, in whose family it remains.

In 1821 the British Government agreed that in the case of Tharād no tribute should be exacted until the revenue had increased one-half, when one-third of the increase was to be paid. This arrangement remained in force until 1825, when all these States were freed from tribute. In 1826 further agreements, partly in supersession of the former ones, were signed and delivered to the British Government, wherein the chiefs promised to allow no Kolīs, Rājputs, or armed men of other districts to live in their territories without informing the British Government; to give up to the British and Baroda Governments any robbers and peace-breakers who had sought shelter in their domains; to help with all their forces in suppressing the Khosas and other freebooters, and to commit no irregularities in the neighbouring districts. The chiefs have also subscribed to the opium engagement of 1822. At first

the relations of the British Government with these States were purely political; but as the Superintendent held the position of universal arbiter, it soon (1820) became necessary to place subordinate officers called *kārkuns* in the small States, with a view of collecting information and keeping order. The *kārkuns* have since developed into *thānadārs* or commandants of posts, officers invested with certain fixed civil and criminal powers. At the beginning of British management these districts were the haunt of daring freebooters, some of them people of the country, others Khosas from Sind. Though the States are still backward and tillage spreads slowly, disorder has been stopped and considerable progress made.

The people. The population at the last four enumerations was: (1872) 508,526, (1881) 576,478, (1891) 645,526, and (1901) 467,271. The decrease during the last decade is due to the severity of the famine of 1899–1902. The average density is 73 persons per square mile; the number of towns 3, and of villages 1,188[1]. The towns are PĀLANPUR, RĀDHANPUR, and DEESA. Distributed according to religion, Hindus form 85 per cent. of the total, Musalmāns 10 per cent., and Jains 5 per cent. Brāhmans (22,000) are numerous, following the literary professions and occasionally holding land. The majority of the population consist of Kunbīs (66,000), Rājputs (22,000), and Kolīs (99,000), who are landowners and cultivators throughout the Agency. There is a large shepherd caste, the Rabāris (30,000), who are nomadic. Among the artisans, Chamārs, numbering 28,000, stand first. The principal languages are Gujarātī and Western Hindī.

Agriculture. The soil of the Agency is of three kinds: the black, suited for cotton, rice, millets, wheat, and (if there be water) sugarcane; a light soil, suited for the different kinds of pulse; and sandy, growing pulses and the palmyra palm. The country has been partly surveyed, but the exact cultivated area is unknown; it may be roughly stated that about three-fifths of the whole is cultivated, the remaining two-fifths about equally divided between cultivable and uncultivable land. Except on irrigated tenures, manure is not used generally. Holdings vary from 8 to 50 acres and upwards. Most of the land is in the occupation of holders of service tenures. Skilled husbandmen are comparatively few in number, and the majority of them are hampered with debt, and are more or less in the hands of the village money-lenders. The soil produces the usual Gujarāt cereals and pulses, cotton in the rich black soil of the Sami

[1] This is the figure at the last Census, which took no account of unpopulated villages.

tāluka of Rādhanpur and the Vārāhi and Sāntalpur *tālukas*, *san*-hemp, and *mūng*. Sugar-cane and a small quantity of tobacco are also grown in Pālanpur.

Domestic animals.

The bullocks of Kānkrej have been highly esteemed since the time of Akbar. They are the finest animals of their kind in Gujarāt. Buffaloes, cows, sheep and goats, camels, horses, and asses are also bred in both Pālanpur and Rādhanpur. Stallions are maintained by the more important chiefs.

Forests.

The large forests in the north and north-east of the Agency might, if well managed, yield a considerable revenue. The chief trees are the *khair* (*Acacia Catechu*), *sālar* (*Boswellia thurifera*), *bel* (*Aegle Marmelos*), *bor* (*Zizyphus Jujuba*), *jinjhara* (*Bauhinia racemosa*), and *karanj* (*Pongamia glabra*). The Bhīls and Kolīs gather beeswax, gum, and honey, and sell them to Vānīs or Memons. A considerable number of cattle are pastured in these forests, and still more in the valley of the Banās. The bamboo thickets are in places very fine, especially on the top of Jāsor hill.

Manufactures.

Several minor industries exist, such as the extraction of oil from *rosha* grass, and the preparation of bobbins from *khimi* wood. Saltpetre is also prepared locally. A cotton-ginning factory is working at Sami; and at Singam, a village near the Rann, good leather-work is prepared.

Commerce and trade.

The chief exports are saltpetre, grain, rapeseed, castor, sesamum, cotton, *attar* of *chāmpa* (*Michelia Champaca*) and of *keora* (*Pandanus odoratissimus*), cattle, and *ghī*; the imports are tobacco, fruit, spices, molasses, sugar-candy, sugar, cotton and silk cloth. The value of the whole trade, which is about equally divided between exports and imports, is estimated at from 40 to 45 lakhs in ordinary years. The exports go chiefly to Mārwār, Cutch, Kāthiāwār, Gujarāt, and Bombay. The imports come from Central and Upper India, Bombay, Kaira, Mārwār, Ahmadābād, and Pāli. Trade is carried on at permanent markets, the leading centres being Pālanpur, Rādhanpur, Deesa, Sami, and Munjpur.

Communications.

Except 2 miles of metalled roads and 4 miles unmetalled recently constructed in the town of Pālanpur, only cross-country tracks exist. Avenues of trees are maintained on $3\frac{1}{4}$ miles, and for 17 miles on the Pālanpur-Deesa road, which is in a state of disrepair. The Bombay, Baroda, and Central India Railway crosses the north-east corner for about 48 miles, with a branch 17 miles long from Pālanpur to Deesa; but the principal line is the Rājputāna-Mālwā Railway from Ahmadābād to Delhi. There are in all sixteen British post offices in the Agency.

Rural messengers are also employed to carry letters to and from the different States.

Famine. The years held in remembrance as times of scarcity and famine are 1747, 1756, 1785, 1791, 1804, 1813, 1825, 1834, 1839, 1842, 1849, and 1899–1902. Of these, the severest were the famines of 1813 and of 1899–1902. To such straits were the people brought in 1813 that some are said to have lived on human flesh; and in such numbers did they die that the survivors could not carry away the dead. Villages were left desolate, and parts of the country, formerly cultivated, have ever since lain waste. The price of grain rose to 3 seers per rupee. The whole Agency suffered severely from famine in 1899–1902. Relief measures were commenced in September, 1899, and were not closed till October, 1902. The highest daily number of persons in receipt of relief was 92,348 in July, 1900. Cattle died in great numbers. More than 20 lakhs was spent on famine relief during the year 1899–1900, involving the States in debts amounting to 18 lakhs: namely, Pālanpur 9 lakhs, Rādhanpur 3 lakhs, and other States 6 lakhs.

Administration. The chiefs of Pālanpur and Rādhanpur States are invested with full criminal and civil powers, and in matters of revenue are almost independent; but the sanction of the Political Agent is required for the trial of British subjects for capital offences. Over them the Political Agent exercises only a general supervision; but in the remaining eight petty States *kārkuns*, now called *thānadārs*, five in number, are invested with power to try second-class criminal cases and to decide civil suits up to Rs. 500 in value. There are also one European and two native Political Assistants who have higher powers; and above them is the Political Agent, who is the highest executive and judicial authority. But in important criminal cases appeals lie to the Commissioner of the Northern Division, and in murder cases and important civil matters to the Bombay Government. In Pālanpur and Rādhanpur towns there are local courts, from whose decision a final appeal lies to the chiefs in person, who follow codes of their own, based on British Indian laws. The chiefs of Tharād and Vāv have power in criminal cases to award three and two years' imprisonment, and to fine up to Rs. 5,000 and Rs. 2,000 respectively. In civil suits they exercise jurisdiction up to a value of Rs. 10,000 without appeal. The commonest forms of crime are theft, cattle-stealing, and hurt.

Revenue. The gross revenue of the Agency is 15 lakhs, drawn from four chief sources: land (7 lakhs), customs ($3\frac{1}{2}$), excise ($1\frac{1}{2}$), and miscellaneous cesses including judicial receipts (3). The

expenditure is 14 lakhs, chiefly devoted to administrative and domestic purposes. The Pālanpur State, the Thākur of Thara, and the *tālukas* under Kānkrej pay a tribute of Rs. 46,202 to the Gaikwār. Transit duties were abolished throughout the Agency in 1887.

Land revenue.

Except in the unusual case of persons holding land hereditarily (*karam jodia*), who have an occupancy right or *batta*, land is almost everywhere in the hands of tenants-at-will, most of whom, in the State villages, hold direct from the chief, and in cadet (*bhāyād*) or proprietary (*mulgirāsia*) villages from the cadet or proprietor. The cultivator has no power to dispose of his holding by sale or otherwise. Rent-free service lands (*pasaita*) and lands granted in charity are sometimes sublet to peasants who pay rent to the original holders. On such lands the State does not receive the ordinary assessment, but under the name of *salāmi* the original holder makes the State a yearly payment, fixed at from 25 to 30 per cent. of the gross produce. In some villages the assessment on tobacco, pepper, and the early crops is paid in money at rates fixed on the number of ploughs, while in others the revenue is collected under the crop share (*bhāgbatai*) system. The share due to the State is fixed on a rough estimate by a State official and the village *pātel*. In Pālanpur and Rādhanpur States the rents are collected by village accountants under the control of revenue *tahsīldārs*, who are again subordinate to the chief's revenue minister. In other parts of the Agency, except Tharād and Vāv, where the chief's share of the revenue is collected by officials appointed for the purpose, the proprietors themselves realize the revenue with the help of village officials. Survey operations are now in progress.

Public works and municipalities.

Of the several works constructed since 1875 in the Agency, the chief are the Goodfellow Hospital, the High School, and the Jackson Hall at Pālanpur, the Scott Canal and Harris Clock-tower at Rādhanpur, and several roads. There are four municipalities—at PĀLANPUR, DEESA, Tekra, and Rājpur—the latter two places being suburbs of Deesa cantonment; and all of them are administered as departments of the State. Their income is derived from octroi duty.

Army and police

There is a large British cantonment at Deesa, the income of which in 1903-4 was Rs. 35,000 and the expenditure Rs. 32,000. At present one native infantry regiment is stationed there. The chiefs of the Agency maintained in 1903-4 a military force of 861 men, consisting of 206 mounted and 655 foot-soldiers, and a foot and mounted police force of 4,794 men, of whom

2,935 were in Pālanpur and 752 in Rādhanpur. The Agency contains one Agency jail, five State jails, and six *thāna* lock-ups, which had in 1903–4 a daily average of 288 prisoners.

Education. The States decided in June, 1882, to defray all educational expenses, receiving in return all school fees, and agreed that the expenditure should be regulated by the proposals of the Bombay educational department. In the Pālanpur Agency 20,206 persons were returned as literate in 1901, 8 per cent. of the male population being able to read and write. The Agency contained in 1903–4 a high school, 2 middle schools, 70 primary schools, and 17 private schools, or a total of 90, compared with 30 and 110 in 1881 and 1891 respectively. The total number of pupils was 3,298, of whom 222 were girls. The cost of education was Rs. 27,000.

Medical. About 40,000 persons received medical relief at 4 hospitals and 13 dispensaries in 1903–4. The cost of maintenance amounted to Rs. 28,880. About 12,000 persons were vaccinated in the same year.

Pālanpur State.—State in the Pālanpur Agency, Bombay, lying between 23° 57′ and 24° 41′ N. and 71° 51′ and 72° 45′ E., with an area of 1,766 square miles. It is bounded on the north by the Rājputāna States of Jodhpur and Sirohi; on the east by Sirohi and Dānta States, the Arāvalli range forming the boundary; on the south by Baroda; and on the west by other States under the Pālanpur Agency. The length from east to west is 60 miles, and from north to south 45 miles.

The southern and eastern portions are undulating and tolerably well wooded. Towards the north the country becomes mountainous, with much forest; the villages are far apart, and generally poor and small; the hills afford excellent pasture; and the forests contain many useful timber trees. The State is watered by the Banās river, which runs through its entire length, and by the Saraswāti, which crosses a portion of its eastern tracts. The climate is dry and hot, and fever is prevalent. The rainfall in 1903 was 25 inches. The temperature ranges from 51° to 91° in January and from 80° to 113° in May.

The chief, or, as he is entitled, the Dīwān, of Pālanpur is descended from the Lohānis, an Afghān tribe who were subsequently known in history as Jhāloris, and who captured Jhālor from the Chitor Rājputs in the fourteenth century. On their first arrival they were vassals of Ahmadābād; and during the disturbances which marked the fall of that monarchy, Ghazni Khān Jhālor endeavoured to rouse Northern Gujarāt to arms on behalf of Muzaffar Shāh, the last Ahmadābād Sultān. For

this action he was imprisoned by Akbar, but was subsequently (1589–90) reinstated at Jhālor, and seven years later received the title of Dīwān and the government of Lahore for successfully repulsing an invasion of the Afghān tribes. During his rule his brother Malik Fīroz Khān took Pālanpur and Deesa, making the former his head-quarters. Ghazni Khān was succeeded in 1614 by his son Pāhār Khān, who yielded place in 1616 to Malik Fīroz Khān, the conqueror of Pālanpur. Subsequently (1699) Jhālor and Sāchor, the possession of which had been confirmed by Aurangzeb in 1682, were taken from the family, which thenceforth fixed its seat at Pālanpur. The connexion of the British Government with the State dates from 1809, in which year the chief was murdered by a body of factious nobles, and his infant son was placed on the throne by the British under the regency of an uncle. Constant dissensions, however, occurred between uncle and nephew until 1817, when the former broke into open revolt, peace being eventually restored by a British force which stormed the town of Pālanpur and replaced the young chief on the throne. The task of administration was then entrusted to a Political Superintendent, and a local force of 250 men was raised to prevent further breaches of the peace. This arrangement was enforced until 1874, when the control of the Political officer, particularly over the State's expenditure, was relaxed. The levy was maintained until 1891.

The chief is entitled to a salute of 11 guns, and has power to try for all offences any persons, except British subjects, whose cases require the sanction of the Political Agent. The family holds a patent or *sanad* guaranteeing any legitimate succession according to Muhammadan law, and follows the rule of primogeniture in point of succession.

The population of the State was 215,972 in 1872, 234,402 in 1881, 274,864 in 1891, and 222,627 in 1901. It contains one town, PĀLANPUR, and 510 villages. The density of population is 70 persons per square mile. Hindus number 183,495; Muhammadans, 26,452; and Jains, 12,602.

To the north and west the soil is light and sandy, needing little water but usually yielding only one crop a year. To the south and east, towards the hills, the soil is a rich black capable of giving three crops a year with a good rainfall. For the first crops slight rain is sufficient, but in the case of the late harvest heavy rain is required, when the yield is very abundant. The principal products are wheat, rice, and other grains, and sugarcane. Four stallions are maintained at Pālanpur for horse-breeding purposes.

The high roads from Ahmadābād to Pāli in Mārwār, and from Ahmadābād to Nasīrābād, Ajmer, Delhi, Agra, and Deesa, pass through the State. A considerable trade in cotton, cloth, grain, raw sugar, and rice is carried on with Pāli, Dholera, Ahmadābād, and Rādhanpur.

The chief enjoys a gross revenue of 7·3 lakhs, and pays a tribute of Rs. 38,461 to the Gaikwār of Baroda. The land revenue in 1903-4 yielded 2·1 lakhs, and excise revenue Rs. 55,000. No transit duties are levied. The State maintains, at an annual cost of about 1¼ lakhs, a force of 161 horse and 440 foot. The police force consisted in 1903-4 of 2,935 men, regular and irregular.

The State maintains 22 schools attended by 1,275 pupils, of whom 31 were girls. About 12,200 persons received relief at hospitals and dispensaries in 1903-4. The number of persons vaccinated in the same year was 11,800.

Rādhanpur State.—State in the Pālanpur Agency, Bombay, lying between 23° 26′ and 23° 58′ N. and 71° 28′ and 70° 3′ E., with an area of 1,150 square miles. Including Sami and Munjpur, it is bounded on the north by the petty States of Morvāda and Tervāda; on the east by Baroda; on the south by Ahmadābād District and Jhinjhūvāda in Kāthiāwār; and on the west by the petty State of Vārāhi under Pālanpur.

The country is flat and open. Its rivers, three in number, rise near Mount Abu and the spurs of the Arāvalli range, and fall into the Little Rann. They generally dry up during the hot season, when the inhabitants are dependent on wells for their supply. Water is found at a depth of from 10 to 30 feet, but is sweet only near the surface, owing to the proximity of the Rann. From April to July, and in October and November, the heat is excessive. If rain falls, August and September are pleasant months; and from December to March the climate is cool and bracing. The prevailing disease is fever. The mean temperature is 41° in January and 115° in June.

Rādhanpur, now held by a branch of the Bābi family, who, since the reign of Humāyūn, have always been prominent in the annals of Gujarāt, is said to have once belonged to the Vāghelas, and to have been called Lūnāvāda, after Vāghela Lūnājī of the Sardhāra branch of that tribe. Subsequently it was held as a fief under the Sultāns of Gujarāt by Fateh Khān Baloch, and is said to have been named Rādhanpur after Rādhan Khān of that family.

The first Bābi entered Hindustān in the company of Humāyūn. Bahādur Khān Bābi was appointed *faujdār* of Tharād

in the reign of Shāh Jahān; and his son Sher Khān Bābi, on account of his local knowledge, was sent to aid prince Murād Bakhsh in the government of Gujarāt. In 1693 his son Jāfar Khān, by his ability and local influence, obtained the *faujdāri* of Rādhanpur, Sami, Munjpur, and Tervāda, with the title of Safdar Khān. In 1704 he was made governor of Bijāpur (in Gujarāt), and in 1706 of Pātan. His son, Khān Jahān, also styled Khānjī Khān, received the title of Jawān Mard Khān, and was appointed governor of Rādhanpur, Pātan, Vadnagar, Visalnagar, Bijāpur, Kherālu, &c. His son, again, Kamāl-ud-dīn Khān, usurped the governorship of Ahmadābād after the death of Aurangzeb, during the incursions of the Marāthās and the subsequent collapse of the imperial power. During his rule a branch of the family was able to establish itself at Junāgarh and Bālāsinor. The founder of the Junāgarh house, who was also the first Bābi of Bālāsinor, was Muhammad Bahādur, otherwise known as Sher Khān. In 1753 Raghunāth Rao Peshwā and Dāmājī Gaikwār suddenly appeared before Ahmadābād; and Kamāl-ud-dīn Khān, after a brilliant defence, was forced to surrender the city, but was confirmed as *jāgīrdār* of Rādhanpur, Sami, Munjpur, Pātan, Visalnagar, Vadnagar, Bijāpur, Tharād, and Kherālu. It was agreed at the same time that the Marāthās should give Kamāl-ud-dīn Khān the sum of one lakh, besides presenting him with an elephant and other articles of value. Dāmājī Gaikwār, however, wrested from his successors all their dominions, excepting Rādhanpur, Sami, and Munjpur.

In 1813 Rādhanpur, through Captain Carnac, then Resident at Baroda, concluded an engagement with the Gaikwār, whereby the latter, under the advice of the British authorities, was empowered to control the external relations of Rādhanpur, and assist in defending it from foreign invasions. In 1819, on aid being sought of the British Government by Rādhanpur against the Khosas, a predatory tribe from Sind, Colonel Barclay marched against them and expelled them from Gujarāt. In 1820 Major Miles negotiated an agreement with the Nawāb of Rādhanpur. Under the terms of this agreement the Nawāb bound himself not to harbour robbers, or enemies of the British Government; to accompany the British troops with all his forces; and to pay a tribute in proportion to his means. On February 18, 1822, the tribute was fixed for five years at Rs. 17,000. This tribute was, in 1825, remitted by the British Government, and has never again been imposed, the engagement of 1820 remaining in force in other respects. The Nawāb is entitled to a salute of 11 guns. The family

holds a *sanad* authorizing any legitimate succession according to Muhammadan law, and follows the rule of primogeniture in point of succession.

The population in 1901 was 61,548, compared with 98,017 in 1891. Hindus numbered 49,887 and Muhammadans 8,019. The State contains one town, RĀDHANPUR, and 159 villages. The principal products are cotton, wheat, and the common kinds of grain. Except vegetables, no irrigated crops are grown. The only manufacture of importance is the preparation of a fine description of saltpetre.

The chief has power to try his own subjects, even for capital offences, without permission from the Political Agent. In 1903-4 the gross revenue of the State amounted to nearly 4 lakhs, chiefly derived from land (2·7 lakhs) and customs (Rs. 79,000).

The State maintains a military force of 35 horse and 163 foot. The strength of the police in 1903-4 was 771 men. There are 24 schools attended by 711 pupils, including 94 girls. The State maintained six medical institutions in 1903-4, treating more than 13,400 patients. In the same year over 1,500 persons were vaccinated.

Kānkrej (or Thara).—A collection of petty estates under the Pālanpur Agency, Bombay, with a total area of 810 square miles. They are bounded on the north by Pālanpur; on the east by a subdivision of Baroda territory; on the south by Rādhanpur State; and on the west by the Pālanpur estates of Dīodār. The population in 1901 was 38,829, compared with 38,842 in 1891. The first connexion of the British Government with the estates of Kānkrej dates from the formation in 1819-20 of the Mahī Kāntha Agency, in which they were included till 1844, when, on account of their nearness to Pālanpur, they were transferred to the Pālanpur Agency. Kānkrej comprises 26 different estates, the chief of which are Thara, Un, and Kamboi, most of them held by Rājputs who have intermarried with Kolī women. The largest and most important estate is Thara, whose chiefs are Vāghela Kolīs by caste; and these, by refusing to eat with their brethren, have been allowed to intermarry with Rājput houses, and are now generally admitted as belonging to the Rājput tribe. The principal village in Kānkrej is Thara, 5 miles north of which is Kākar, the ancient capital of the State, with some ruined temples.

Deesa (*Dīsa*).—Cantonment in the Pālanpur Agency, Bombay, situated in 24° 14′ N. and 72° 12′ E., on the Banās river, about 300 miles north-by-west of Bombay City, on the Pālan-

pur-Deesa branch of the Bombay, Baroda, and Central India Railway. Population (1901), 11,047 in cantonment, and 3,686 in the native town. The cantonment is situated on the left bank of the Banās, three miles north-east of the native town. The garrison consisted in 1905 of a regiment of native infantry. Deesa town is surrounded with a wall and towers, now in ruins. In former times it successfully resisted the attacks of the Gaikwār of Baroda and of the Rādhanpur forces. There are two Jain temples and a mosque of interest. The income of the cantonment fund in 1903-4 amounted to Rs. 35,000, and the expenditure to Rs. 32,000.

Pālanpur Town.—Capital of the State of the same name in Bombay, situated in 24° 10′ N. and 72° 28′ E., at the junction of the Pālanpur-Deesa branch of the Bombay, Baroda, and Central India Railway with the main line. Population (1901), 17,799. It is the head-quarters of the Pālanpur Political Agency, and the residence of the Dīwān or chief of Pālanpur State. The town, lying low, is hidden and commanded by a circle of hillocks. It is surrounded by a brick-and-mortar wall, built in 1750 by Dīwān Bahādur Khānjī, from 17 to 20 feet high, 6 feet thick, and 3 miles in circuit. The two suburbs of Jainpura and Tājpura are surrounded by a ditch, once 12 feet deep and 22 feet broad. The houses are irregular and closely packed, and the streets and lanes, with few exceptions, are narrow and dirty. The supply of water, chiefly from wells, is unwholesome. The public health is not good, lung diseases and fevers being prevalent.

Pālanpur is a very old settlement. It is mentioned in the eighth century as the place where Vanarājā (746-80), the founder of the Chāvada dynasty of Anhilvāda, was brought up. Early in the thirteenth century it appears as Prahlādan Pātan, the capital of Prahlādan Deo of the Ponwār house of Chandrāvati. Afterwards falling waste, it was in the fourteenth century repeopled by Pālansi Chauhān, from whom it takes its present name. Pālanpur contains a hospital, a school, and a library.

Rādhanpur Town.—Capital of the State of the same name in Bombay, situated in 23° 49′ N. and 71° 39′ E. Population (1901), 11,879. It lies in the midst of an open plain, mostly under water during the rains. It is surrounded by a loopholed wall 15 feet high, 8 feet broad, and about 2½ miles in circumference, with corner towers, 8 bastioned gateways, outworks, and a ditch now filled up. There is also, surrounded by a wall, an inner fort or castle, where the Nawāb lives. Rādhanpur is a considerable trade centre for Northern Gujarāt and Cutch.

The nearest railway station, 34 miles distant, is at Pātan. A municipality is maintained from local taxation, which yielded Rs. 2,717 in 1903-4, and from a monthly grant of Rs. 750 made by the State. The chief exports are rapeseed, wheat, grain, and cotton; and the chief imports are rice, sugar, tobacco, cloth, and ivory. In 1816, and again in 1820, a disease, in many symptoms resembling the true plague, visited Rādhanpur and caused the death of half its population. The name is said to be derived from Rādhan Khān, a descendant of Fateh Khān Baloch who held the town under the Ahmadābād Sultāns. Another tradition claims for the town a remote origin (A.D. 546), and that it was named after Rādan Deo, a Chāvada chief. Since the defeat of Kamāl-ud-dīn Khān Bābi at Ahmadābād in 1753, Rādhanpur has been the head-quarters of a branch of the Bābi family.

Mahī Kāntha, The (or 'Banks of the Mahī').—Group of States forming a Political Agency under the Government of Bombay, lying between 23° 14′ and 24° 28′ N. and 72° 40′ and 74° 5′ E., with a total area of 3,125 square miles. It is bounded on the north-east by the Rājputāna States of Udaipur and Dungarpur; on the south-east by Rewā Kāntha; on the south by the British District of Kaira; and on the west by the State of Baroda, Ahmadābād District, and the country under the Pālanpur Agency. The Mahī Kāntha territory is subject to a number of chiefs, of whom the Mahārājā of Idar is by far the most important. In May, 1877, these chiefs were classified into seven divisions, according to the extent of their jurisdiction.

The Native State of Idar covers more than half the territory; eleven other States are of some importance; and the remainder are estates belonging to Rājput or Kolī Thākurs, once the lawless feudatories of Baroda, and still requiring the anxious supervision of the Political officer. Statistics for all the States and estates that form the Agency are shown in the table on pp. 432 and 433.

Physical aspects.

Mahī Kāntha includes tracts of land differing widely in character and appearance. In the north and east the country is rough and wild, broken by ranges of steep well-wooded hills, of which the most notable are Ghahuns, Kalaroo, and Rojmalno in Idar; Boda Malvalo and Ghahuno in Pol; Arasur in Danta; and Taranga and Amba Vani in Ghodvāda. To the south and west the country is level, well wooded, and most of it cultivated. With a well-marked fall from the north-east to the south-west, the Agency is thoroughly drained. The Saraswatī river, for about 40 miles, passes close to, and almost parallel with, the

north-west boundary. The Sābarmatī river flows through Mahī Kāntha for a distance of 60 miles, crossing the Agency from north-east to south-west for 40 miles, and skirting its western boundary for 20 miles. The Hāthmatī river passes through Mahī Kāntha for about 35 miles, and joins the Sābarmatī below Ahmadnagar. The Khāri, the Meshwa, the Mājam, the Vātrak, and other streams also drain the country. Only the waters of the Hāthmatī have been used for irrigation on a large scale. Between 1869 and 1873 a weir was built across the Hāthmatī close above Ahmadnagar, and so much of its water as was not wanted for the town and other places on its bank was taken to feed a canal for irrigating the Parāntīj *tāluka* of Ahmadābād District. Though Mahī Kāntha has no natural lakes, it is well supplied with ponds and wells. The Rānī Talao has an area of 94 acres, and a greatest depth of 17 feet; the Karmābāwi Talao, area 134 acres, greatest depth 15 feet; the Bābsur Talao, area 182 acres, greatest depth 15 feet.

Geology.

With the exception of Idar, which was geologically surveyed in 1902, the Mahī Kāntha States have never been visited by any geologist, and nothing definite can be said about their geological constitution, further than that it appears to be extremely varied and complex. One of the finest building stones in India is the calcareous sandstone used in the mosques, temples, and palaces of Ahmadābād, which is still quarried at Ahmadnagar, Savgarh, and Parbada in the Idar State, and exported to considerable distances. No details as to its mode of occurrence have ever been ascertained; but it is suggested, from its resemblance to certain rocks of Gujarāt and Central India, that its age may be Cretaceous. The best lime obtainable in India is made from a limestone occurring at Betali in the mountainous country about Idar, which constituted the material used in preparing the beautiful stucco so largely used in the buildings at Delhi. Granite, gneiss, and crystalline marble are also said to occur.

Flora and fauna.

Of trees, Mahī Kāntha has the *mahuā*, the mango, the banyan, the *āsopālav*, the *khākhra*, the wood-apple, the *nīm*, and the teak. The wild animals, many of which are becoming scarce, are tiger, leopard, bear, wolf, wild hog, hyena, jackal, and fox. Deer include the *sāmbar*, the spotted deer, the antelope, the Indian gazelle, and the *nīlgai*. The otter, hare, monkey, and wild cat are common. Snakes, both harmless and venomous, abound. The chief game-birds are jungle-fowl, wild duck, snipe, green pigeon, rock grouse, partridge, bustard, and florican. The rivers are well stocked with fish.

GENERAL STATISTICS OF EACH STATE IN THE MAHĪ KĀNTHA AGENCY

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4). From land.	Revenue (1903-4). Total.	Tribute. Amount.	Tribute. To whom payable
					Rs.	Rs.	Rs.	
1st Class State.								
Idar	Rājput	1,669	884	168,557	3,36,633	5,92,514	30,340	Gaikwār.
2nd Class States.								
Pol	Rājput	135	46	3,959	10,300	17,661	—	—
Dānta	"	347	168	15,262	18,000	42,727	514 2,371 500	Idar. Gaikwār. Pālanpur.
3rd Class States.								
Mālpur	Rājput	97	59	8,065	12,732	22,808	430 280 396	The Briti Gaikwār. Idar.
Mānsa	"	25	12	15,936	46,337	66,267	11,754	Gaikwār.
Mohanpur	"	89	52	10,040	12,126	22,773	4,750 2,245	" Idar.
4th Class Tālukas.								
Varsora	Rājput	11	5	3,656	15,902	18,871	1,583	Gaikwār.
Pethāpur	"	11	3	5,753	11,064	18,479	8,632	"
Ranāsan	"	30	19	3,183	8,022	9,018	750 373 3	Idar. Gaikwār. The Briti
Punādra	Kolī, converted to Islām.	11	11	2,662	11,220	15,598	375	Gaikwār.
Khadāl	"	8	13	2,215	7,900	16,440	1,751 250	" Attarsum
Ghorāsar	Kolī	16	15	6,219	13,192	23,415	3,501 488	Gaikwār. Kaira.
Katosan*	"	10	6	5,510	17,808	26,617	4,893	Gaikwār.
Ilol	"	19	5	3,806	15,305	20,982	428 1,863 17	Idar. Gaikwār. Ahmadna
Amliyāra	"	60	32	7,227	19,754	27,672	317	Gaikwār.
5th Class Tālukas.								
Valāsna	Rājput	21	10	2,749	4,507	5,953	280	Gaikwār
Dābha	Kolī, converted to Islām.	12	9	1,307	3,871	4,379	150 53	" Amliyār
Vāsna	Rājput	10	4	4,494	6,621	10,631	3,109	Gaikwār
Sudāsna	"	32	21	5,269	6,289	10,781	1,036 361	" Idar.
Magori	"	23	27	1,527	2,864	5,056	93	"
Varāgām	"	28	21	2,121	4,129	5,841	—	—
Sāthamba	Kolī	18	22	3,022	3,360	6,146	561 401 127	Bālāsinc Gaikwā Lunāvā
Rupāl †	Rājput	16	13	3,113	3,585	7,045	1,165 362	Gaikwā Idar.
Dadhālia †	"	28	12	2,619	1,707	3,689	699 611	Gaikwā Idar.
6th Class Tālukas.								
Ramās ‡	Muhammadan	6	9	865	2,279	2,623	158	Gaikw
Bolundra ‡	Rājput	6	5	740	1,941	2,499	134	Idar.
Likhi §	Kolī	9	5	959	2,093	2,512	—	—
Hadol §	"	27	19	2,665	2,088	3,983	113 41	Gaikw Idar.
Gābat (7th Class) ‡	"	10	9	604	2,454	2,861	43	"

* The villages of Nandasa, Jakāsna, Ajabpura, Gamanpura, and Jotna belong to the chief of Katosan. their liability for tribute to the Gaikwār is separately fixed, and the respective amounts payable by them follows: Rs. 430-14-0, Rs. 623-4-5, Rs. 96-12-0, Rs. 139-10-9, and Rs. 3,058-1-11.

† These two *tālukas* had jurisdictional powers, of which they were deprived owing to maladminis They were then placed under the jurisdiction of Sābar Kāntha *thāna*.

‡ The *tālukas* of Ramās, Gābat, and Bolundra are under Government management during the r of their chiefs. The first two are in charge of the *thānadār* of Vātrak Kāntha, and Bolundra is unde Kāntha.

§ The chiefs of Likhi and Hadol are non-jurisdictional *tālukdārs*. Likhi is included in Sābar Kān Hadol in Gadhwāra *thana*.

General Statistics of each State in the Mahī Kāntha Agency (*contd.*)

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4). From land.	Revenue (1903-4). Total.	Tribute. Amount.	Tribute. To whom payable.
					Rs.	Rs.	Rs.	
Kāntha *Thāna* :—								
ol (6th Class)	Kolī . .		2	837	1,560	1,823	513 47	Gaikwār. Idar.
rāvāda "	" . .		4	804	3,302	3,758	303 93	Gaikwār. Idar.
loli "	" . .		2	931	2,544	3,782	513 93	Gaikwār. Idar.
htāpur "	" . .	69	4	1,744	5,075	5,788	1,118 486	Gaikwār. Idar.
npur "	" . .		5	1,694	3,512	3,991	187 47	Gaikwār. Idar.
hrota "	" . .		2	725	1,685	2,203	699 74	Gaikwār. Idar.
puri "	" . .		7	1,574	3,186	4,096	699 186	Gaikwār. Idar.
a "	" . .		2	838	2,656	3,974	1,025 219	Gaikwār. Idar.
vāra *Thāna* :—								
āsna (6th Class)	" . .		26	4,928	2,500	4,918	2,794	Gaikwār.
lusna "	" . .		9	2,226	1,000	1,277	1,163	Idar.
ba (7th Class)	" . .		5	1,675	700	935	50	"
ari "	" . .	97	1	1,021	350	565	*	*
ā Kotarna "	" . .		3	820	400	576		
ndap† . . .	. . .		4	588	546	546	71 217	Gaikwār. Idar.
an *Thāna* :—								
guna (7th Class)	Kolī . .		5	3,235	11,763	11,959	892	Gaikwār.
pura "	" . .		3	1,034	3,500	3,500	308	"
oda "	" . .		1	718	1,251	1,326	447 120	" Pātan.
j "	" . .		3	1,033	4,600	4,906	399	Gaikwār.
oli "	" . .		1	800	2,852	3,095	256	"
alpura "	" . .		1	307	2,391	2,391	48	"
nadpura "	" . .	56	1	449	1,800	1,800	175	"
ıpura "	" . .		1	353	1,752	1,901	49 50	" Pātan.
ra "	" . .		1	342	3,051	3,051	239	Gaikwār.
ipura "	" . .		1	199	1,935	1,998	—	—
hal‡ . . .	. . .		3	3,356	§	§	1,774	Gaikwār.
alpura‡ . .	. . .		1	184	‖	‖	42	
jī-nā-pura ‡ . .	. . .		1	220	¶	¶	25	"
*Thāna*** . .	. . .	96	93	28,459	43,033	46,733	29,564	"
Kāntha *Thāna* :—								
nāli †† . . .	. . .	10	6	1,959	1,628	2,411	1,125	Gaikwār.
††	. . .	12	14	2,705	2,000	3,062		
Bazar . . .	. . .	1	1	1,683	1,142	5,620	—	—
		3,125	1,729	361,545	7,15,797	11,47,826	1,34,411	

ordinate to Satlāsna and Bhālusna, and included in their tribute.
ındap is a *matādāri* village and has no chief.
se three villages have no separate chief of their own. Sānthal belongs to the *bhāyād* of the chief of and the shareholders of Deloli, Kāsalpura, &c. Muljī-nā-pura belongs to the shareholders of Deloli, alpura to the shareholders of Tejpura.
hared village. ‖ Included in Tejpura. ¶ Included in Deloli.
constituted of 24 chief *matādāri* villages and 72 sub-villages, including Barmuada.
rmāli and Jher are shared by the Gaikwār and the Miyān of Mandwa, and are administered by the Agent, Mahī Kāntha.

Climate, temperature, and rainfall.

Except in several parts situated in the north and north-east, the climate of Mahī Kāntha is fairly good. The greatest heat is generally in the beginning of April, and the greatest cold in January. The temperature rises to 110° in May and falls to 50° in January. The annual rainfall at Idar averages 34 inches.

History.

The earliest settlers, both rulers and ruled, were the tribes now known as Bhīls and Kolīs. The next comers were Rājputs, whose arrival in Mahī Kāntha seems to date from the establishment of Arab power in Sind and the fall of Vallabhinagar in the eighth century. In the eleventh century the Musalmān destruction of Nagar Tatta in Sind drove out the Paramāra Rājputs; and in the next two centuries the farther advance of Musalmān power forced many other Rājput tribes, such as the Paramāras of Chandrāvati, the Rāthors of Kanauj, and the Chāvadas of Anhilvāda, south into the Mahī Kāntha hills. To the Chandrāvati Paramāras belong the houses of Mohanpur, Ranāsan, Rupāl, Varāgām, and Bolundra; to the Kanauj Rāthors belong the houses of Pol, Mālpur, Valāsna, and Magori; and to the Chāvadas of Anhilvāda belong the houses of Mānsa and Varsora. By intermarriage with the Kolīs many of these Rājputs lost caste, keeping only the names of the clans—Makvāna, Dabi, and Bāriya—to which their forefathers belonged. In the fifteenth century came the Vāghela houses of Pethāpur and Posina (in Idar).

Jai Chand, the last Rāthor Rājput sovereign of Kanauj, is said to have left two sons; the first founded the present family of Mārwār, and the second in 1257 established himself at Idar. For four centuries the chiefs of the line bore the title of Rao of Idar; but the last independent prince, Jagannāth, was driven out by the Muhammadans in 1656. (For further history of Idar, *see* IDAR STATE.) The family retired into the hills, fixed their head-quarters at Pol, and were known as the Raos of that mountainous tract. The present chief is descended from them. Dānta is said to have been established in 809, but its history is mainly a record of continual struggles with Idar. In the fifteenth century Mahī Kāntha fell under the sway of the Ahmadābād Sultāns, and on their decline under that of the Mughal emperors. The Mughals only collected occasional tribute by moving a large force into the territory. The Marāthās followed the Mughals, and every two or three years sent their *mulk-giri* or 'tribute-collecting army' into the region. In 1811, when the Marāthā power was declining, the British Government stipulated to collect and pay over to the Gaikwār

the yearly tribute. In 1820 the British Government finally took over the management of the Mahī Kāntha territory. They agreed to collect and pay over the tribute free of expense to Baroda, while Baroda was pledged not to send troops into the country, or in any way to interfere with the administration. Since 1820 disturbances have occurred more than once. From 1833 to 1836 there were local tumults, which required an armed force for their suppression. In 1857–8 a display of force again became necessary, when the registration of arms and the disarming of part of the people took place. A smart engagement was fought at Taringa hill, and the town of Mondeti was carried by assault. In 1867 a disturbance arose at Posina. Peace remained unbroken until 1881, when the Bhīls of Pol rose against their chief and extorted from him a settlement of their claims.

Population.

The population of the Agency at the last four enumerations was: (1872) 447,056, (1881) 517,485, (1891) 581,568, and (1901) 361,545. The enormous decrease of 38 per cent. during the last decade was due to famine. Mahī Kāntha contains 6 towns and 1,723 villages, and supports 115 persons per square mile. The towns are MĀNSA, IDAR, PETHĀPUR, VADĀLI, AHMADNAGAR, and SĀDRA. Hindus form 90 per cent. of the total, Muhammadans 5 per cent., Jains 3 per cent., and aboriginal tribes number 6,367. Among the Hindus, Brāhmans number 27,000, Rājputs 15,000, Vānīs 9,000, Kunbīs (cultivators) 68,000, Kolīs (labourers) 92,000, Kumbhārs (potters) 9,000; and, among low castes, Chamārs 15,000, and Dhers 14,000. Muhammadans are chiefly Momins (4,000), formerly weavers but now mostly cultivators, and Ghānchis (3,000) or oilmen. The aboriginal tribes are chiefly Bhīls (18,000), of whom 12,000 were entered as Hindus at the recent Census, though probably not differing in religion from their animistic brethren.

The BHĪLS are the most remarkable of the Mahī Kāntha tribes. They are hardy and enterprising, and as sagacious in daily conduct as they are secret and speedy when on one of their robbing expeditions. They speak a dialect composed of Rājāsthānī and Gujarātī, which is extremely difficult to understand; worship stones covered with red lead and oil, believe firmly in witchcraft, and are much addicted to witch-swinging. Ordinarily among the Mahī Kāntha Bhīls the woman chooses her own husband. At the Posina fair in the north, if a Bhīl succeeds in taking the woman he desires to marry across the river without being discovered, the parents of

both agree to the marriage. If he is found out before he has crossed the river, the man is severely handled by the father of the girl. The *ver* or Bhīl vendetta usually takes the form of cattle-lifting. No Bhīl will disregard the *kulki* or cry which proclaims that a tribesman is in trouble. Some Bhīls, taking the name of *bhagats* or ascetics, have become the followers of a Bhīl teacher, Kherādi Surmal. This teacher is a follower of the Hindu god Rāma (the seventh incarnation of Vishnu), and forbids eating the flesh of domestic animals, the drinking of liquor, and the committing of offences. Like a high-caste Hindu, the *bhagat* does not partake of food without bathing, puts a red mark on the brow, and ties a yellow strip of cloth round the turban. The Bhīls formerly treated these *bhagats* as outcastes, and caused them much annoyance. This the authorities put a stop to. In 1880 the *bhagats* were estimated at 800, and not one of their number had been accused of any crime. They are now no longer regarded as outcastes, and are increasing in number.

The Census of 1901 showed that 59 per cent. of the entire population are engaged in agriculture; commercial and professional classes include 4 per cent. and 1 per cent. respectively.

Agriculture.

The soil is of two kinds, sandy and black, both of which are rich. The south and west of the Agency are level. Most of the tillage is for *kharīf* or rainy season crops. Of the total area of 3,125 square miles, more than 850 square miles, or 27 per cent., are cultivable. The chief crops grown are wheat, rice, *bājra*, gram, cotton, sesamum, rapeseed, and sugar-cane. The Mahī Kāntha bullocks are smaller and weaker than those of North Gujarāt; the buffaloes also are inferior. In the valley of the Saraswatī there is a large irrigated area. The waters of the Hāthmati have been used for irrigation, and the canal from that river is worked by Government. Elsewhere irrigation is carried on chiefly from wells and ponds.

Forests and minerals.

Though Mahī Kāntha contains large tracts of more or less wooded hills, chiefly covered with bamboos, brushwood, and teak, it has no important revenue-yielding forests. The teak is generally uncared for, and cut down before it grows to any size. The chief forest products are gum and honey. At Ahmadnagar, Savgarh, and Parbada in the Idar State a very superior calcareous sandstone is quarried, which is much used for ornamenting public buildings.

Arts and manufactures.

Weaving is carried on at Ahmadnagar and Pethāpur. The finest weaving is the work of the Musalmāns of the Momin

sect. The cloth made by them is woven from silk and cotton yarn, both country and English. The best dyers are at Pethāpur and Vāsna, who colour and export coarse English cloth. Since the famine many of the people engaged in local industries have emigrated to the neighbouring cities to find work in the mills. Idar, Ahmadnagar, and Pethāpur were once famous for their arms and cutlery. The manufacture of arms is now forbidden, and the cutlery industry is declining.

Trade.

Considerable trade was formerly carried on between Gujarāt and Mewār through Idar, Pol, and thence to Mārwār. Pethāpur and Vāsna export dyed cloth worth over a lakh annually. The chief local trade centres are Mānsa, Pethāpur, Sādra, Idar, Ahmadnagar, and Katosan. The most important fairs are those at Sāmāljī and Brahmakhed.

Communications.

The Mahī Kāntha Agency is traversed by three railways, the Ahmadābād-Parāntīj, the Gaikwār's Mehsāna, and the Vijāpur-Kalol-Kadi line. The first passes by Dabhoda, Rakhial, and Ahmadnagar; the second by Jotana and Katosan; and the third has stations at Limbodra and Radheja, serving the Mahī Kāntha towns of Mānsa, Pethāpur, and Sādra. There are 41 miles of metalled and 89 miles of unmetalled roads in the Agency, the most important being the Idar-Ahmadnagar road in Idar, the Danta-Ambajī road, the Sādra-Dabhoda road, and the Jhālod-Modasa road in Varāgām. Avenues of trees are maintained for 3 miles. Post offices are situated at Idar, Ahmadnagar, Sādra, and Mānsa. Telegraph offices have been recently opened at Sādra, Idar, and Ahmadnagar.

Famine.

Severe famines occurred during the last two centuries in 1791, 1813, and 1899–1900, besides scarcities in 1825 and 1834. The recent famine of 1899–1900 was of an unprecedented nature and pressed very severely on the people. Relief works were opened and poorhouses were established. At the height of the famine there were 37,249 persons on relief works and 6,251 in receipt of gratuitous relief. Advances and remissions were granted, and the *tālukdārs* were assisted with loans from Government for relief and other purposes.

Administration.

At the head of the Agency is the Political Agent, who has three Assistants. The *tālukas* up to the third class are under his direct supervision. The other *tālukas* and the five *thānas* or groups of petty estates are divided between his Assistants. The Assistant Political Agent has also the charge of the Agency police. The Personal Assistant has the charge of all estates and *tālukas* attached by the British Government during the minority of the holders or by reason of mismanagement.

The Native Assistant has charge of the Sādra civil station, the treasury, and the jail. Civil and criminal justice is administered by the chiefs according to the class to which they belong. The Mahārājā of Idar is a first-class chief, exercising full powers of jurisdiction, both civil and criminal (in the case of capital offences committed by British subjects with the consent of the Political Agent). The chiefs of the second class exercise jurisdiction in civil cases up to Rs. 20,000 and full jurisdiction in criminal cases, subject to confirmation by the Political Agent in capital cases, and with the same limitation as Idar in regard to British subjects. Chiefs of the third class exercise jurisdiction in civil cases up to Rs. 5,000, and in criminal cases up to a penalty of two years' imprisonment and Rs. 1,000 fine, with a limitation in regard to British subjects; and so on for the remaining four classes, with gradually decreasing powers. The Political Agent is vested with the powers both of a Sessions Judge and of a District Magistrate. As far as practicable, the Civil and Criminal Procedure Codes and the Indian Penal Code are in force, but in the wild Bhīl tracts on the Rājputāna frontier all offences are dealt with under rules based on local customs. In 1838 Captain (afterwards Sir James) Outram instituted border *panchāyats* for the settlement of the numerous blood-feuds and disputes between the wild Bhīls on the Mahī Kāntha and Rājputāna frontiers. The system, which is one of money compensation for crime, has been found very effective in preventing reprisals and maintaining peace. In 1873 the rules were revised, providing for the regular assembling of the courts under a British officer as president, aided by two assessors from each of the States concerned. In 1878 arrangements were concluded for the extradition of all criminals except Bhīls, and of *bhopās* or witch-finders among the Bhīls, between Mahī Kāntha and Rājputāna. The commonest forms of offence are theft, robbery, dacoity, cattle-stealing, hurt, and murder.

Land revenue and finance.

Formerly the land revenue was farmed, but it is now collected direct from the cultivators. Except in a portion of the Idar State, no survey settlement has been introduced. The entire revenues of the States of Mahī Kāntha in 1903–4 were returned at 11½ lakhs, the chief sources being land revenue, excise, and judicial revenue. Prior to the famine of 1899–1900 the gross revenues exceeded 12 lakhs. The expenditure in 1903–4 amounted to 11 lakhs. The total tribute payable by different States amounts to nearly 1½ lakhs. The Gaikwār, as superior overlord, receives more than a lakh; but of this

amount about a lakh has been credited to Government towards police expenses since the withdrawal of the contingent maintained by the Gaikwār. The chief of Idar receives about Rs. 8,600, and other Gujarāt States (who receive tribute from minor allied feudatories in the Agency) Rs. 2,166. The whole of the tribute is collected by the British Government and handed over to the superior chiefs entitled to receive it. In 1878-9 measures were taken in most of the Mahī Kāntha States for the suppression of illicit stills, in which *mahuā* liquor is manufactured; but the cheapness of this liquor is still the curse of the country, as the Bhīls and Kolīs cannot resist the temptation to drunkenness.

Police and jails.

There are two distinct police forces in Mahī Kāntha, the Agency police and the State police. In 1903-4 the strength of the former was 121 mounted and 393 foot, and the latter consisted of 175 mounted and 915 foot. There are 39 jails and lock-ups, with a daily average of 210 prisoners.

Local funds.

Local funds are collected and placed at the disposal of the Political Agent. The receipts of the Agency Local funds in 1903-4 amounted to more than one lakh, and the expenditure was Rs. 96,000. These funds are known as the (1) Agency general fund, made up of contributions from the States and judicial receipts of the Agency courts, and expended on education, justice, and vaccination; (2) Sādra Bazar fund, composed of taxes and octroi, and expended on education and conservancy; (3) Scott College fund, composed of subscriptions from the States; and (4) the Jubilee Pauper Patient Endowment fund, composed of subscriptions from the States and private persons for the benefit of helpless patients in the dispensary.

Education.

There is a *tālukdāri* school, known as the Scott College, at Sādra, with 27 boys on the rolls, built at a cost of over half a lakh, for the sons of the Rājās and the Thākurs who are unable to attend the Rājkumār College in Kāthiāwār. The total number of schools in the Agency in 1903-4 was 117, with an attendance of 6,315 pupils. The total expenditure was Rs. 30,189. The 4 Bhīl schools managed by the missionaries are attended by over 117 pupils. Of the total population, 22,641, or 6 per cent. (12 per cent. males and 0.3 females), were recorded as literate in 1901.

Medical.

Nineteen dispensaries were maintained in 1903-4, at which 59,228 patients were treated. The total cost was Rs. 22,605. About 10,000 persons were vaccinated in the same year.

Idar State.—Principal Rājput State of the Mahī Kāntha

Agency, Bombay, lying between 23° 6′ and 24° 29′ N. and 72° 45′ and 73° 39′ E., with an area of 1,669 square miles. It is bounded on the north by Sirohi and Udaipur; on the east by Dungarpur; and on the south and west by the Bombay Presidency and the territories of the Gaikwār of Baroda. In the south-west lies a level and sandy tract, but elsewhere the country is broken by wild hills covered with an abundance of trees and brushwood. Except during the hot season the scenery is very beautiful. Idar is well drained by the Sābarmatī, Hāthmatī, Meshwa, Mājam, and Vātrak rivers.

Tradition relates that from 800 to 970 Idar was under Gahlot rule, and, after a period of Bhīl independence, was subject to Paramāra Rājputs (1000–1200). Amar Singh, the last Paramāra ruler, left Idar in the hands of his servant Hathi Sord, a Kolī, who held the country till his death, and was succeeded by his son Samalio Sord. The latter, a debauched and vicious man, roused so much discontent that his ministers conspired against him, and invited Rao Sonang of Sāmetra, the ancestor of the Raos of Pol, to their aid. This chief killed Samalio Sord, and took possession of his territory. About twelve generations of this family are reckoned to the expulsion of Jagannāth, the last Rao of Idar, in 1656, by Murād Baksh, at that time the *Sūbahdār* of Gujarāt. A *desai* or deputy was afterwards placed in charge of Idar for some years. In 1728 Anand Singh and Rai Singh, two brothers of the Rājā of Jodhpur, accompanied by a few horsemen from Vamo and Pālanpur and the Kolīs of Godwāra, established themselves in Idar without much difficulty. This family is the last that effected a settlement in Gujarāt by conquest. They are said to have acted under an order from Delhi; but the truth seems to be that they were tempted by the state of the country, and most likely assisted by the Jodhpur princes who at that period held the *Sūbahdārī* of Ahmadābād. The Idar principality consisted of the districts of Idar, Ahmadnagar, Modāsa, Bāyad, Harsol, Parāntīj, and Vijāpur, to which five other districts were rendered tributary. Some years after the conquest, at the instigation of the *desai* above mentioned, who appears to have been displaced, an officer in the service of Dāmājī Gaikwār, named Bachājī Duvājī, was dispatched on the part of the Peshwā to take possession of Idar. This he accomplished with the aid of the Rehwār Rājputs, the servants of the late Rao. Anand Singh was killed about 1753; and Bachājī, after leaving a detachment behind, returned to Ahmadābād. Rai Singh, however, collected a force, and again obtained possession of

Idar. Shiv Singh, son of Anand Singh, now became ruler under the guardianship of his uncle Rai Singh, who died in 1766. During the rule of Shiv Singh the State was stripped by the Peshwā of Parāntīj, Vijāpur, and half of the three districts of Modāsa, Bāyad, and Harsol, which districts were afterwards ceded by the Peshwā to the British Government. The other half of the Idar territories fell to the Gaikwār, who contented himself with the exaction of a share of the revenues, fixed in perpetuity by the settlement of 1812 at Rs. 24,000 for Idar and Rs. 8,950 for Admadnagar. Shiv Singh died in 1791, leaving five sons, the eldest of whom, Bhawān Singh, succeeded him, but died in a few days, leaving the State to his son Gambhīr Singh, a boy of ten. Dissensions in the family now arose, which resulted in the temporary dismemberment of Idar. Sangrām Singh, second son of Shiv Singh, who had received Ahmadnagar from his father in feudal grant, assumed independence; and with his assistance Zālim Singh and Amīr Singh, two other sons of Shiv Singh, after a long struggle possessed themselves respectively of Modāsa and Bāyad during Gambhīr Singh's minority. Indra Singh, the fifth son of Shiv Singh, who was blind, received Sur and three other villages for his maintenance. Sangrām Singh, chief of Admadnagar, died in 1798, and was succeeded by his son Karan Singh. Zālim Singh of Modāsa died childless in 1806, and his apanage ought to have lapsed to Idar. His widow, however, was allowed by the Gaikwār to adopt Pratāp Singh, Karan Singh's brother, on whose death in 1821 Modāsa was united with Ahmadnagar. On the death of Amīr Singh of Bāyad without children, the reversion was claimed by both Idar and Ahmadnagar. The chief of Ahmadnagar, Karan Singh, died in 1835, and was succeeded by his son Takht Singh, who was elected ruler of the State of Jodhpur in 1843. On his removal to Jodhpur, he still claimed the right to retain Ahmadnagar in his family; but in 1848 the British Government decided that Ahmadnagar should revert to Idar, and with it Modāsa and Bāyad. The chief, who is styled Mahārājā, is a Rājput of the Rāthor clan and of the Joda family. He holds a *sanad* granting the right of adoption and is entitled to a salute of 15 guns. The present Mahārājā is Major-General Sir Pratāp Singh, G.C.S.I., K.C.B., Aide-de-camp to His Majesty the King-Emperor.

The population of the State was 217,382 in 1872, 258,429 in 1881, 302,134 in 1891, and 168,557 in 1901. The decrease of 44 per cent. during the last decade is due to the severity of the famine of 1899–1900. The number of towns and villages

was returned in 1901 as 884. The density of population is 101 persons per square mile. The chief towns are AHMADNAGAR (population, 3,200), the capital, IDAR (7,085), and VADĀLI (4,611). Classified according to religion, Hindus numbered 156,948, Muhammadans 8,200, and Jains 4,376. The majority of the population are Kolīs, the remainder consisting of Rājputs, Brāhmans, Baniyās, Kunbīs, Bhīls, &c.

The soil of the State is generally fertile; in some places it is of a light sandy nature, in others rich and black; towards the north and north-eastern parts near the hills, poor and stony. Nearly 17 per cent. of the land is cultivated. The principal crops are grains, oilseeds, and sugar-cane. The jungle in some parts, particularly at the foot of the hills, is very thick and intersected with ravines. A small quantity of country soap is manufactured. There are quarries in the neighbourhood of Ahmadnagar, and the stone is used for building purposes. The State suffered very severely in the famine of 1899–1900.

The chief exercises first-class jurisdiction, having power to inflict capital punishment. Many relatives of the Mahārājā, and feudal chiefs whose ancestors helped to secure the country for the present dynasty, now enjoy large estates on service tenures; and there are numerous petty chiefs or *bhūmiās* who have held considerable estates from the time of the Raos of Idar, or earlier, and are under no obligation of service. The revenues of the State are shared by the Mahārājā with these feudal chiefs. In 1903–4, out of a total gross revenue of nearly 6 lakhs, it was estimated that only 4½ lakhs was received by the central authority. The chief sources of revenue are the land, stamps, and special cesses known as *dan*, *khichadi*, &c.; and the chief heads of expenditure are classed under administration and *darbār* expenses. The Mahārājā receives about Rs. 8,600 annually from several chiefs in Mahī Kāntha, and pays Rs. 30,340 as tribute to the Gaikwār of Baroda through the British Government. Many chiefs subordinate to Idar, known locally as *pattāwals*, hold their estates on condition of military service, the quota being three horsemen for every 1,000 rupees of revenue; but for many years this service has not been exacted, and no military force is maintained at present. In 1903–4 the State contained 21 courts for criminal justice, and maintained a police force of 91 mounted men and 539 foot, at an annual cost of Rs. 76,000. Besides these, 36 mounted men and 150 foot are maintained at a cost of Rs. 10,800 in the territories of the *bhūmiās*. There were 49 schools in the same year with 2,473 pupils, of which 7 were girls' schools. The

total expenditure on education, excluding schools in Sardārs' villages, was Rs. 11,330. There are also 3 missionary schools with 106 pupils. An attempt to induce the Bhīls to send their children to school has failed; they laughingly say their sons must learn to drive cattle and use the bow. The State contains a hospital and six dispensaries, treating annually 19,000 patients.

Ahmadnagar Town.—Capital of the State of Idar in the Mahī Kāntha Agency, Bombay, situated in 23° 34′ N. and 73° 1′ E., on the left bank of the Hāthmatī, and on the Ahmadābād-Parāntīj Railway. Population (1901), 3,200. It is surrounded by a stone wall, built about 1426 by Sultān Ahmad I (1411–43), who is said to have been so fond of the place that he thought of making it, instead of Ahmadābād, the capital of Gujarāt. When the present dynasty took Idar (1728), Ahmadnagar soon fell into their hands. After the death of Mahārājā Shiv Singh in 1791, his second son, Sangrām Singh, took Ahmadnagar and the country round, and, in spite of the efforts of his nephew, Gambhīr Singh, became an independent chief. Sangrām Singh was succeeded by his son, Karan Singh. The latter died in 1835, and the British Agent, Mr. Erskine, who was in the neighbourhood with a force, moved to Ahmadnagar to prevent the Rānīs from becoming *satī*. The sons of the deceased Mahārājā begged Mr. Erskine not to interfere with their customs. Finding him resolved to prevent the sacrifice, they secretly summoned the Bhīls and other turbulent tribes, and in the night, opening a way through the fort wall to the river bed, burnt the Rānīs with their father's body. The sons then fled, but subsequently gave themselves up to Mr. Erskine; and, after entering into an engagement with the British Government, Takht Singh was allowed to succeed his father as Mahārājā of Ahmadnagar. Some years later he was chosen to fill the vacant throne of Jodhpur. He tried to keep Ahmadnagar and its dependencies, but, after a long discussion, it was ruled in 1848 that Ahmadnagar should revert to Idar. The chief remains are the Bhadr Palace, built of white stone, and a reservoir, both in ruins. The palace is said to have been originally constructed in the reign of Sultān Ahmad I, the founder of the town. A new palace has been erected on the Bhadr site by the present Mahārājā of Idar. The town contains a hospital treating annually about 7,000 patients, and is administered as a municipality with an income (1903–4) of Rs. 1,755 and an expenditure of Rs. 1,401.

Amliyāra.—Chief place of the petty State of the same

name in the Mahī Kāntha Agency, Bombay, situated in 23° 13′ N. and 73° 5′ E., 34 miles north-east of Ahmadābād. Population (1901), 1,474. It contains a temple of Siva, a Musalmān tomb, and the ruins of an old town.

Arasur Hills.—Hills in the Mahī Kāntha Agency, Bombay. They are celebrated for the shrine of Ambā Bhawāni, also known as Ambājī, a place of pilgrimage near the source of the Saraswatī river, at the south-west end of the Arāvalli range, about 15 miles north of the town of Dānta. The origin of the shrine is lost in antiquity. Probably 'Mother Ambā' was one of the deities of the pre-Hindu race, whom the Hindu conquerors absorbed into their pantheon and finally identified with the goddess Bhawāni. The shrine seems to have been as celebrated in the days of Vallabhi (746) as it is now, for tradition tells that, when that famous city fell, king Silāditya's wife Pushpāvati was on a pilgrimage to Ambā Bhawāni. Here at a still earlier date the hair of the infant Krishna was offered; and here in after days Krishna's bride Rukmini worshipped the goddess, when she was rescued by her husband from the threatened embraces of Sisupāl. The road to the shrine lies through valleys and over forest-clad hills. The stream of votaries never quite ceases, but thrice a year, from all sides, great trains of pilgrims make their way to the shrine. The chief pilgrimage is in Bhādarva (September), the goddess's birth-month. On the eighth night of the *navarātri* the Rānā of Dānta attends the worship, fans the goddess with a horsehair fly-flapper, celebrates the fire sacrifice, and fills with sweetmeats a huge cauldron, which the Bhīls empty on the fall of the garland from the goddess's neck. Among the offerings to the goddess are animal sacrifices and spirituous liquors. In a walled enclosure, partly filled with dwellings for temple servants and resthouses, stands the temple, a small building of coarse marble. The builders are said to have been Nāgar Brāhmans, but its date is not known. Some of the pillars have inscriptions, chiefly of the sixteenth century, recording private gifts. Four miles north-east of Ambā Bhawāni is the temple of Koteshwar Mahādeo. Attached to it is a partly ruined resthouse. Pilgrims who attend the Ambā Bhawāni shrine must visit this temple also, and bathe in the source of the Saraswatī.

Idar Town.—Formerly the capital of the State of Idar, in the Mahī Kāntha Agency, Bombay, situated in 23° 50′ N. and 73° 4′ E., 64 miles north-east of Ahmadābād. The town is traditionally known as Ildurg. Population (1901), 7,085. Idar is surrounded by a brick wall in fair preservation, through

which a road passes by a stone gateway, marked with many red hands each recording a victim to the rite of *satī*. In the vicinity are some cave-temples supposed to be upwards of four hundred years old. The town contains a dispensary, and is administered as a municipality with an income (1903–4) of Rs. 1,348 and expenditure of Rs. 803.

Mānsa Town.—Chief town of the State of the same name in the Mahī Kāntha Agency, Bombay, situated in 23° 26′ N. and 72° 43′ E. Population (1901), 9,530. It has a large and wealthy community of merchants, and is considered the richest town in Mahī Kāntha.

Pethāpur Town.—Chief town of the State of the same name in the Mahī Kāntha Agency, Bombay, situated in 23° 13′ N. and 72° 33′ E., on the west bank of the Sābarmatī. Population (1901), 5,616. The town is noted for the brilliancy of its dyes and for the manufacture of cutlery, but the latter industry is declining. Considerable quantities of cloth are brought into the town to be coloured, and are then exported to Siam.

Sādra.—Head-quarters of the Mahī Kāntha Agency, Bombay, situated in 72° 47′ N. and 23° 21′ E., on the Sābarmatī river, about 25 miles north of Ahmadābād. Population (1901), 1,683. Sādra contains a small fort said to have been built by Sultān Ahmad I (1411–43), who also built the fort of Ahmadnagar. Colonel Ballantyne, the first Political Agent, built a picturesque bungalow on the side of the fort next the river, which is still the Political Agent's office; a new Residency was built on the southern rampart in 1887. A broad well-laid-out market-place, with rows of trees on both sides and well lighted at night, leads from the Ahmadābād road to the fort. Near the Residency is the small neat hospital, built with money subscribed by the Mahī Kāntha chiefs, and a public library. The Political Agent exercises direct jurisdiction within the station, but offences committed outside its limits are under the cognizance of the Vāsna Thākur. Several schools are situated at Sādra, including the Scott College for minor chiefs and their relations.

Vadāli Town.—Town in the State of Idar, Mahī Kāntha, Bombay, 12 miles north of Idar town. Population (1901), 4,611. It is a very ancient town, perhaps the O-cha-li which Hiuen Tsiang describes as between Mālwā and Vallabhi. In the eleventh century Vadāli was the centre of a large kingdom. The town is administered as a municipality, with an income (1903–4) of Rs. 407 and an expenditure of Rs. 80.

General Statistics of each State in the Rewā Kāntha Agency

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4). From land.	Revenue (1903-4). Total.	Tribute. Amount.	Tribute. To whom payable.
					Rs.	Rs.	Rs.	
First-class State.								
Rājpīpla	Rājput . .	1,517½	927	117,175	5,37,485	8,76,014	50,001	Gaikwār.
Second-class States.								
Chota Udaipur . .	Rājput . .	873	546	64,621	1,00,678	2,15,391	7,806	Gaikwār.
Bāriya	"	813	495	81,579	67,833	2,13,375	—	—
Lūnāvāda	"	388	348	63,967	1,11,932	1,78,701	{ 5,001 9,231	Gaikwār & British
Bālāsinor . . .	Musalmān.	189	102	32,618	64,447	99,543	{ 3,078 9,766	" "
Sunth	Rājput . .	394	291	39,956	62,725	1,09,207	5,384	British.
Petty States.								
Kadāna.	Rājput . .	130	106	9,550	13,430	18,683	—	—
Bhādarva	"	27	15	8,782	23,329	35,856	14,674	Gaikwār.
Umeta	"	36½	14	3,834	28,572	36,132	{ 3,846 2,402	Gaikwār & British
Sanjeli	"	34	52	2,743	6,772	13,326	—	—
Nārukot	Bāriya . .	143	53	5,603	5,682	15,049	32	Gaikwār.
Total States		4,545	2,949	430,428	10,22,885	18,11,277	1,11,221	
Sankheda Mehwās.								
1 Māndwa	Rājput . .	16½	8	4,987	22,223	32,533	1,704	Gaikwār.
2 Vajiria	Musalmān.	21	21	3,929	25,387	29,962	3,852	"
3 Gad Boriad . . .	Rājput . .	128	128	3,018	4,890	9,377	365	Chota Udaipur.
4 Shanor.	"	11¼	7	1,219	8,861	11,819	1,214	Gaikwār.
5 Naswādi	"	19½	27	2,482	7,332	8,865	1,301	"
6 Palāsni	"	12	13	855	3,637	4,303	1,639	"
7 Bhilodia :—								
Motisinghī . .	"	4½	3	732	5,451	8,866	933	"
Chhatarsinghjī .	"	4½	5	789	4,942	5,699	933	"
8 Uchad	Musalmān.	8½	13	1,482	9,319	10,214	679	"
9 Nāngām	"	3	4	367	1,600	1,834	995	"
10 Vāsan Virpur . .	"	12½	22	2,185	15,903	18,798	332	"
11 Agar	"	17	28	1,399	9,911	10,746	143	"
12 Vora	"	3¼	2	1,060	5,757	6,632	655	"
13 Alwa	"	5	8	805	4,756	5,577	52	"
14 Vāsan Sewada . .	"	12½	6	765	3,860	4,710	885	"
15 Chorāngla . . .	Rājput . .	16	16	1,404	3,801	5,029	73	"
16 Vanmāla	Musalmān.	10½	10	743	3,513	3,952	102	"
17 Sindiapura . . .	"	4	6	483	2,570	2,866	44	"
18 Bihora	"	1¼	2	159	1,605	1,643	39	"
19 Vadia Virampur .	"	1	1	96	890	890	79	"
20 Dudhpur	"	1¾	1	108	667	679	27	"
21 Rāmpura	Rājput . .	4½	4	1,457	2,315	3,556	1,094	"
22 Jiral Kāmsoli . .	Musalmān.	5	10	672	4,541	4,852	256	"
23 Chudesar	"	2½	4	359	2,951	2,965	239	"
24 Regan	"	4	2	262	877	976	355	"
25 Nalia	"	1	1	56	164	270	28	"
26 Pantlavdi :—								
Akbar Khān . .	"	2½	3	178	2,212	2,544	127	Rājpīpla.
Kesar Khān . .	"	2½	3	221	1,750	2,213	43	"
Total Sankheda Mehwās .		335½	358	32,272	1,61,685	2,02,370	18,188	

Rewā Kāntha ('the banks of the Rewā or Narbadā').—A Political Agency subordinate to the Government of Bombay, established in 1821–6, having under its control 61 separate States, lying between 21° 23′ and 23° 33′ N. and 73° 3′ and 74° 20′ E., with a total area of 4,972 square miles. Besides

GENERAL STATISTICS OF EACH STATE IN THE REWĀ KĀNTHA AGENCY (*cont.*)

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4). From land.	Revenue (1903-4). Total.	Tribute. Amount.	Tribute. To whom payable.
Pāndu Mehwās.					Rs.	Rs.	Rs.	
Pāndu	Musalmān	9	17	1,149	4,502	5,798	3,462	Gaikwār.
Sihora	Bāriya	15½	23	2,640	12,039	16,719	3,693	"
Chhāliar	Rājput	11	17	1,983	6,146	7,562	2,616	"
Nara	Bāriya	3	1	263	74	96	19	"
Varnol Māl	"	3½	2	426	1,000	1,094	65	"
Jumkha	"	1	1	145	222	335	39	"
Itwad	Rājput	6	10	843	893	1,152	462	"
Vakhtāpur	"	1½	1	244	606	816	116	"
Mevali	Pagi	5	2	900	1,100	1,603	1,155	"
Kasla Pagina Muvāda	"	1	1	41	55	159	50	"
Kanora	Bāriya	3¾	6	884	1,116	1,582	1,232	"
Poicha	Rājput	3¾	6	736	1,764	2,163	1,155	"
Gotardi	Pagi	3	1	228	385	478	327	"
Mokha Pagina Muvāda	"	1	1	96	115	445	96	"
Jesar	"	1½	2	313	392	433	116	"
Varnoli Nāni	Rājput	1	1	74	228	346	19	"
Dhari	"	3¾	5	821	1,567	2,121	731	"
Varnoli Moti	"	2	1	168	317	409	78	"
Rājpar	"	1½	1	80	318	487	39	"
Litter Gothda	Kolī	1¼	1	416	583	654	155	"
Amrāpur	Bāriya	2	2	251	249	434	155	"
Dorka	Pātidār	3	1	911	4,395	4,703	850	"
Anghad	Kolī	4¼	1	2,269	2,735	5,181	1,344	"
Raika	Rājput	3	1	474	3,337	3,609	443	"
Total Pāndu Mehwās		91¼	105	16,355	44,138	58,379	18,417	
GRAND TOTAL		*4,971¾	†3,412	479,055	12,28,708	20,72,026	1,47,826	

* According to the latest information. † This figure is based on the latest information. Unpopulated villages were not enumerated at the Census of 1901.

lands stretching about 50 miles along the south bank of the Narbadā, Rewā Kāntha includes an irregular band of territory from 10 to 50 miles broad, passing north of the Narbadā to about 12 miles beyond the Mahī, and an isolated strip on the west lying chiefly along the left bank of the Mahī. It is bounded on the north by the Rājputāna States of Dungarpur and Bānswāra; on the east by the *tāluka* of Dohād in the Pānch Mahāls District, Alī-Rājpur and other petty States of the Bhopāwar Agency, and part of Khāndesh District; on the south by Baroda territory and Surat District; and on the west by Broach District, Baroda territory, the Pānch Mahāls, Kaira, and Ahmadābād Districts. Extreme length from north to south about 140 miles, breadth from east to west varying from 10 to 50 miles.

Of the 61 States, 6 are large and 55 are small. Of the large States, Rājpīpla in the south is of the first class; and five—Chota Udaipur and Bāriya in the centre, and Sunth, Lūnāvāda, and Bālāsinor in the north and north-west—are second-class States. The 55 small States include Kadāna and Sanjeli in

the north, Bhādarva and Umeta in the west, Nārukot in the south-east, and three groups of Mehwās or 'turbulent' villages. The 26 Sankheda Mehwās petty estates lie on the right bank of the Narbadā, while the 24 Pāndu Mehwās petty estates, including Dorka, Anghad, and Raika, which together form the Dorka Mehwās, are situated on the border of the Mahī.

Physical aspects.

In the outlying villages to the west along the Mahī, and in the north and south where Rewā Kāntha stretches into the plains of Gujarāt, the country is open and flat; but generally the Agency is hilly. Its two principal ranges are: in the south, the Rājpīpla hills, the westernmost spurs of the Sātpurās, forming the water-parting between the Narbadā and Tāpti valleys; and across the centre of the Agency, the spurs of the Vindhya range running west from the sandstone-crowned table-land of Ratanmāl, and forming the water-parting between the Narbadā and the Mahī. In the 120 miles of the course of the Mahī through Rewā Kāntha, the country changes from wild forest-clad hills in the east to a flat bare plain in the west. Its deep banks make this river of little use for irrigation. Its stream is too shallow and its bed too rocky to allow of navigation. The Narbadā enters the Agency through a region of hill and forest with wooded or steep craggy banks. For the last 40 miles of its course, the country grows rich and open, the banks lower, the bed widens, and the stream is deep and slow enough for water-carriage. For 8 miles it is tidal.

Geology.

Gneiss and Deccan trap are the predominant rock formations in Rewā Kāntha, the former in the northern part of the Agency, the latter in the southern. There are also some outcrops of Cretaceous rocks underlying the Deccan trap and of Tertiary rocks overlying it. The Cretaceous and Tertiary beds, including the Deccan trap, dip in various directions at low but distinct angles and are frequently faulty. The gneiss is mostly a coarse-grained granitoid rock, associated sometimes with crystalline schists. At the north-western extremity of the gneiss area are some ancient strata classified under the name of Chāmpāner beds. The Cretaceous rocks belong to the Lameta group, also called Bāgh or infra-trappean, which is of cenomanian age. Some outcrops fringe the northern limit of the Deccan trap area, along the valleys of the Asvan and Men rivers; and there are also some inliers in the midst of the basaltic outcrop, principally near Kawant and in the Devī valley, respectively north and south of the Narbadā. The Deccan trap contains the usual basaltic flows, with occasional intercalations of fossiliferous fresh-water inter-trappean beds.

Ash-beds and agglomerates are frequent, and dikes are very abundant, especially in the Rājpīpla hills, which occupy the site of an ancient focus of volcanic activity. Intrusive sills, some of them trachytic instead of basaltic, also penetrate the underlying Lameta. The surface of the Deccan trap was greatly denuded and extensively transformed into ferruginous laterite during the Tertiary period. The lowest Tertiary beds at the western extremity of the Rājpīpla hills rest upon a thick mass of this ferruginous rock, and throughout the entire series a great many ferruginous beds recur at various horizons; the Tertiary beds consist largely of the accumulated products of disintegration from the adjoining volcanic area. Two groups have been distinguished in the Tertiary: a lower group with Nummulites, identical with the upper part of the Kīrthar in Sind, or the Spīntangi in Baluchistān, whose age is middle eocene; and an upper group without Nummulites, containing numerous bands of conglomerate. Marine and terrestrial fossils, the latter including fragments of fossil wood, occur in this upper subdivision, which answers to the Gāj group and Siwāliks. The celebrated agate-mines of Ratanmāl in the Rājpīpla State are situated in a conglomerate belonging to this group. The agates in their original form consist of geodes contained in the Deccan trap basalt which, having been set free by the disintegration of the enclosing rock, have been shaped into waterworn pebbles accumulated into conglomerate layers. The exceptional value of the Ratanmāl agates is due to the lateritic ferruginous matrix in which they are imbedded: they have been impregnated with ferruginous products giving them a much appreciated colour, which is further enhanced by artificial treatment.

A great part of Rewā Kāntha is forest. The commonest tree is the *mahuā*, found in great numbers in the States of Chota Udaipur and Bāriya. Teak is abundant, but, except in sacred village groves, is stunted. The other most abundant trees are black-wood, tamarind, mango, *rāyan*, *sādado* (*Terminalia Arjuna*), *beheda*, *timburrun*, *bili* (*Aegle Marmelos*), *khair*, &c. Many shrubs and medicinal plants are also found in the forests. Among grasses the most important are *viran* or *khas-khas* and elephant-grass, the stems of which are used to make native pens. **Botany.**

Tigers are very rare; but leopards, though yearly becoming fewer, are still found in considerable number. Bears and wild hog are common. *Sāmbar*, spotted deer, and *nīlgai* are found throughout the greater part of the Agency; bison in the **Fauna.**

extreme south-east. The painted and common sand-grouse, red spur-fowl, peafowl, painted and grey partridge, and quail are common. Common jack and painted snipe, black goose, cotton, whistling, common, and blue-winged teal, are some of the principal water-fowl.

Climate and temperature.

In the forest-covered tracts of eastern Rewā Kāntha, with large areas of land rich in springs, the cold in January is very severe, ice forming on pools and the crops suffering at times from frost. The heat is at times intense, the thermometer in the shade in Lūnāvāda and Bāriya rising to 108° and 110°. In 1903 the minimum ranged from 54° in January to 80° in May, and the maximum from 85° in January to 112° in May. In 1873 the heat was so great that several persons died, and bats and monkeys are said to have fallen dead from the trees. Healthy in the open parts, the climate of the eastern hill and forest tracts, especially in Bāriya and Rājpīpla, is very sickly. The chief diseases are malarial fever, eye and skin complaints, diarrhoea, and dysentery.

Rainfall.

The annual rainfall in the Agency varies from 38 to 48 inches. At Lūnāvāda, Rājpīpla, and Bālāsinor it averages 38 inches, and at Bāriya and Chota Udaipur 48 inches.

History.

Under the first Anhilvāda dynasty (746–961), almost all the Rewā Kāntha lands except Chāmpāner were under the government of the Bāriyas, that is, Kolī and Bhīl chiefs. In the eleventh, twelfth, and thirteenth centuries chiefs of Rājput or part Rājput blood, driven south and east by the pressure of Muhammadan invasion, took the place of the Kolī and Bhīl leaders. The first of the present States to be founded was the house of the Rājā of Rājpīpla. Kadāna is said to have been established as a separate power about the thirteenth century by Limdevjī, younger brother of Jhālam Singh, a descendant of Jhālam Singh, the founder of the town of Jhālod in the Pānch Mahāls. About the same date Jhālam Singh's son settled at the Bhīl village of Brahmapurī, changing its name to Sunth. In the sixteenth century the Ahmadābād Sultāns brought under submission almost the whole of Rewā Kāntha. In the seventeenth century, although a member of the Bābi family founded the State of Bālāsinor, the power of the Gujarāt viceroys began to decline. The Marāthās soon spread their authority over the plains, and collected tribute with the help of military force.

The younger branches of the chiefs' families had from time to time been forced to leave their homes and win for themselves new States; and these, with the descendants of

a few of the original chiefs, form the present landholders of the small estates of the Agency. Under the Marāthās, they plundered the country; and as the Gaikwār failed to keep order, the British had to undertake the task. In 1822 an agreement was concluded with the Gaikwār, under which the control of all the Baroda tributaries was vested in the Bombay Government. In that year Mr. Willoughby was appointed to settle the affairs of the territory. In 1823 the position and tribute of the chiefs of the Sankheda Mehwās were settled by him. In 1825 the chiefs of the Pāndu Mehwās came under British control. At the same time the political control of the Pānch Mahāls was made over by Sindhia to the Government, and Bāriya State was transferred from the Bhopāwar Agency, Central India. The Political Agency of Rewā Kāntha was established in 1826 to take charge of Rewā Kāntha, including Rājpīpla, Sindhia's Pānch Mahāls, the Mehwās estates on the Mahī and Narbadā, Bāriya, Chota Udaipur, and Nārukot of the Naikdas. The States of Lūnāvāda and Sunth, which had been under British control since 1819, were afterwards transferred from the Mahī Kāntha Agency. In 1829 the appointment of Political Agent was abolished, and the chiefs were left very much to themselves for a few years. In 1842 the Political Agency at Rewā Kāntha was re-established, and the powers of the chiefs in criminal cases were defined. In 1853 the State of Bālāsinor was transferred from the Kaira Collectorate; and Sindhia handed over for a period of ten years the administration of the Pānch Mahāls. In 1861 the Pānch Mahāls were exchanged by Sindhia for land near Gwālior, and became British territory. Two years later the Pānch Mahāls were removed from the control of the Agent and formed into a separate charge. In 1876 the Pānch Mahāls were raised to the rank of a District, the officer in charge of it having control of the Rewā Kāntha States. The estate of Nārukot is managed by the British Government, which takes half the total revenue, the remaining half going to the chief, under the agreement of 1839. Since 1825 the peace of Rewā Kāntha has thrice been broken: in 1838 by a Naikda (Bāriya, Chota Udaipur, and Nārukot) rising; in 1857 by the presence of a rebel force from Northern India; and in 1868 by another Naikda (Nārukot) disturbance.

Population. The population at the last four enumerations was: (1872) 512,569, (1881) 549,892, (1891) 733,506, and (1901) 479,065. The great decrease during the last decade was due to severe famine. The average density is 96 persons per square mile. The Agency contains 6 towns and 2,817 villages. The chief

towns are Nāndod, Lūnāvāda, and Bālāsinor. Hindus number 435,023, or 90 per cent. of the total; Muhammadans, 23,712, or 5 per cent.; aboriginal tribes, 18,148; Jains, 1,400; and Christians, 267. The Brāhman caste (20,000) is largely represented by the Audich (7,000) and Mewāda Brāhmans (5,000). There are 17,000 Rājputs, and among cultivating castes Kunbīs (34,000) are important; but the States of the Agency are mainly populated by aboriginal tribes of Bhīl and Kolī origin. Though these tribes suffered severely in the famine of 1899–1902, the last Census disclosed 91,000 Bhīls, 150,000 Kolīs, 32,000 Dhodias, 27,000 Naikdas, and 18,000 Dhankas. Disinclined to regular cultivation, these tribes lead a wandering life, subsisting very largely on forest produce. They are thriftless and fond of liquor, and when intoxicated will tire themselves out in wild dancing. Crime, however, is less frequent among them than formerly. Among Hindu low castes, Mahārs number 14,000.

Agriculture. Rewā Kāntha includes great varieties of soil. In the north near the Mahī, and in the south near the Narbadā, are rich tracts of alluvial land. In Lūnāvāda and Bālāsinor in the north, light brown *goradu*, not so rich as that of Central Gujarāt, is the prevailing soil. There are also a few tracts of grey *besar* land, generally growing rice. Near the Shedhi river are some patches of land called *bhejvāli*, very damp, and yielding a cold-season crop of wheat and pulse, but not well suited for cotton. In Sunth the black or *kāli* soil holds moisture well, and without watering yields two crops a year. The Bāriya lands—light brown *goradu*, deep black *kāli*, and sandy *retal*—are capable of yielding any crop except tobacco. The black loam of the Sankheda and Pāndu Mehwās is nearly as rich as the cotton lands of Amod and Jambusar in Broach. Rājpīpla, especially its Narbadā districts, is exceedingly fertile. Except a few tracts of rocky and inferior black soil, Rewā Kāntha is on the whole fertile. In the open country, in the hands of Kunbī and other high-class husbandmen, the tillage is the same as in Central Gujarāt. In the hilly and wooded tracts inhabited by Bhīls, Kolīs, and other unsettled tribes, cultivation is of the rudest kind.

Of the total area, about 1,719 square miles are cultivable, of which 1,030 square miles were actually under cultivation in 1903–4. The principal crops are: cereals (maize, rice, *jowār*, *bājra*, and *kodra*); pulses (*tur*, *math*, and gram); oilseeds (castor, gingelly, and *til*); and fibres (cotton and *san*-hemp). The wheat grown in the Agency is of two kinds, *vājia* and

kātha. The rice is of a coarse description known as *vari*. Of *kodra* a local variety (*minia kodra*) has a narcotic property, which is to a certain extent neutralized by washing and drying the grain two or three times before grinding. Turmeric, chillies, cumin, melons, guavas, custard-apples, and plantains are commonly grown.

Domestic animals. The domestic animals are buffaloes, cattle, horses, sheep, and goats. In Bālāsinor, Lūnāvāda, Sunth, and Bāriya goats are carefully bred, and yield fairly close and fine wool. Horse-breeding is carried on in Sunth.

Irrigation. Only 4,637 acres were irrigated in 1903–4, distributed as follows: Rājpīpla (127), Lūnāvāda (2,856), Bālāsinor (1,438), Sunth (216). Wells are the only source of irrigation.

Forests. The greater part of Rewā Kāntha is covered with forests, of which the most valuable are in Bāriya State. The chief trees have already been described under Botany. The forest Reserves are of two kinds: State Reserves, or tracts in the large forests where only the Darbār can cut; and sacred village groves, where the finest timber is found. Most of the villages have two kinds of groves—one never cut except on emergencies, and the other less sacred and felled at intervals of thirty years. Except for the wants of the State, or when the villagers are forced to make good losses caused by some general fire or flood, the fear of the guardian spirit keeps the people from destroying their village groves. The forests were once famous for their large store of high-class timber. Strict conservancy in the neighbouring Pānch Mahāls District led to much reckless felling in the Agency, but greater care of their forests is now taken by the chiefs.

Minerals. Manganese ore and mica deposits are found in Chota Udaipur and Jambughoda, and a prospecting licence for manganese in the latter place has been issued. A prospecting and exploring licence will shortly be issued for Chota Udaipur. *Akīk* (agate or carnelian) is worked in Rājpīpla.

Arts and manufactures. The Rewā Kāntha manufactures are of little importance. The chief industries are the making of catechu from the bark of the *khair*, country soap, coarse cotton cloth, and tape for cots. The Bhīls make good bamboo baskets and matting. Since the iron furnaces ceased work, the swords for which Nāndod was once famous are no longer made. There are three cotton-ginning factories worked by steam, and eight distilleries.

Trade. The trade resembles in many respects that of the Pānch Mahāls. Both have a through traffic between Gujarāt and

Central India, and a local trade west with Gujarāt and east with Rājputāna, Central India, and Khāndesh. While the opening of the railways described in the following paragraph has increased the local trade westwards, the through trade has dwindled, the old direct routes with their rough roads and heavy dues failing to compete with the easy railway journey by these lines. The principal exports are timber, firewood, *mahuā*, and other forest produce; and the imports are piece-goods, salt, sugar, and metals.

Communications. Railways and roads.

No State of the Agency possessed railway communications until 1890. The extension of the Anand-Godhra branch of the Bombay, Baroda, and Central India Railway to Ratlām since 1893 has connected the Bāriya State with the main line. Similarly, the construction of the Dabhoi and Baroda-Godhra lines has facilitated the trade of the Chota Udaipur, Rājpīpla, and Bāriya States with the neighbouring Baroda territory; and the Rājpīpla State Railway in 1899 has connected the State with Broach District, as well as with the chief towns on the main line of the Bombay, Baroda, and Central India Railway. Many roads were newly constructed or repaired with the advantage of cheap labour during the famine of 1899–1902. The total length of roads is about 450 miles. There are 27 post offices in the Agency maintained by the British Government.

Famine.

The first famine of which memory remains was in 1746–7. The next severe famines were in 1790–1 and 1812–3, while 1802 and 1825 were years of scarcity. In 1883–4 the rainfall was scanty, and the small harvest was destroyed by swarms of locusts. After a period of fifteen years the Agency again suffered from severe famine in 1899–1902. Relief measures were commenced in November, 1899, and were brought to a close in October, 1902. The highest daily average number on relief was 40,000 in April, 1900, which decreased to 311 in October, 1901, and again rose to 12,000 in May, 1902. More than 10 lakhs was spent on relief. The famine loans contracted by the Darbārs from Government amounted to 4 lakhs, of which Rs. 2,25,000 was borrowed by Rājpīpla and the rest by the other States in the Agency.

Administration.

Civil courts have only lately been introduced into Rewā Kāntha. Disputes were formerly settled by arbitration, and money-lenders were allowed to recover their outstanding debts as best they could. At present there are 32 civil courts in the Agency, of which 17 are under the supervision of the British Government, and 15 in the States. For the purpose of

administering criminal justice, the Rewā Kāntha authorities belong to five classes: *thānadārs* with second and third-class magisterial powers in the estates of the petty Mehwās chiefs; the petty chiefs of Kadāna, Sanjeli, Bhādarwa, and Umeta, who have the powers of second-class magistrates; the second-class chiefs of Bāriya, Bālāsinor, Rājpīpla, Lūnāvāda, Sunth, and Chota Udaipur, with full jurisdiction over their own subjects; the chief of Rājpīpla exercising powers of life and death with jurisdiction over British subjects, except in the case of capital offences by the latter, for the trial of which the Political Agent's sanction is required; and the Agency courts of the Assistant Political Agent and the Political Agent of the five second-class States. Theft, hurt, mischief, and offences against excise and forest laws are the commonest forms of crime. Bālāsinor is at present under British management owing to the minority of the chief; and of the five minor estates, Sanjeli, Umeta, and Nārukot are similarly administered.

Land revenue administration.

Except such portions as they have alienated, the Rewā Kāntha lands belong to the chiefs. The heads of the larger estates take no share in the actual work of cultivation; some small chieftains, whose income is barely enough to meet their wants, have a home farm tilled by their servants; and proprietors (*tālukdārs*) whose estates are too small to lease have no resource but to till their own land. Save that they have to pay no part of their produce to superior holders, men of this class do not differ from ordinary cultivators.

To collect the land revenue, the large States are distributed into *tālukas*, each under a commandant (*thānadār*), who, besides police and magisterial duties [1], has, as collector of the revenue, to keep the accounts of his charge, and, except where middle-men are employed, to collect rents from the villagers. Under the *thānadārs* one or more accountants (*talātis*) are generally engaged. In the petty Mehwās estates the proprietors themselves perform the duties of both *thānadār* and *talāti*. In the small estates under direct British management the revenue is collected by officers known as attachers or *japtidārs*. Rewā Kāntha villages belong to two main classes: State villages held and managed by the chiefs, and private villages alienated or granted under some special arrangement. Private villages are of six varieties: granted (*inām*), held under an agreement (*patāvat*), given as a subsistence (*jīvarakh*), temple (*devasthān*), charitable (*dharmāda*), and held at a fixed

[1] In the States mentioned as being under the direct management of the British Government, *thānadārs* have no police and magisterial powers.

rent (*udhad*). In State lands the form of assessment varies from the roughest billhook or plough cess to the elaborate system in force in British territory. The former ranges from 4 annas to Rs. 20, and the latter from annas 4¼ to Rs. 25 per acre. The crop-share system prevails in parts of Bālāsinor, Sunth, and the petty estate of Chudesar, and in the alluvial lands of Māndwa in the Sankheda Mehwās. The form of assessment levied from the rudest and most thriftless Bhīls and Kolīs, who till no land, consists of cesses known as *dātardi*, *pāni*, *kodāli*, &c. From those a degree better off, who are able to keep bullocks, a plough tax is levied. Among some of the more settled and intelligent communities a rough form of the separate holding (*khātābandi*) system has been introduced, and from others cash acre-rates (*bighoti*) are levied. In such cases the holdings are roughly measured. Survey settlements are being gradually made throughout the Agency. Except in the surveyed States, where fixed rates are being introduced, the rates levied under hoes, or ploughs, or on the crop-share system, are supplemented by cesses of different kinds.

Revenue and finance.

In former times the scattered nature of the villages and the isolated position of the country, the rivalry among the chiefs to secure settlers, and the lavish grants of lands to Brāhmans, &c., prevented the land from yielding any large amount of revenue. Between 1863 and 1865 the rise in the price of field produce fostered the spread of tillage and increased the rental of rich lands. Since then, owing to the opening of railways and the construction of roads, the cultivated area has continued to increase and the land revenue has steadily risen. Of the total revenue of 21 lakhs raised in 1903-4, 14 lakhs was derived from land, including forest revenue, customs yielded nearly one lakh, and excise nearly 2½ lakhs. Rājpīpla has a net income of about Rs. 11,000 from the railway constructed by the State, at a cost of 13 lakhs, in 1899. The total expenditure amounted to 22 lakhs, and was chiefly devoted to Darbār charges (5½ lakhs), tribute (1½ lakhs), administration (1½ lakhs), public works (1½ lakhs), police (1½ lakhs), military (Rs. 75,000), education (Rs. 67,000), and forests (Rs. 34,000).

Municipalities.

There are four municipalities—NĀNDOD, RĀMPUR, LŪNĀVĀDA, and BĀLĀSINOR—with an aggregate income of one lakh in 1903-4.

Army.

Rājpīpla maintains a military force, which in 1905 consisted of 75 infantry and 36 cavalry, and the State owns 6 guns, of

which 4 are unserviceable. The total military force in the Agency consists of 214 cavalry, 75 infantry, and 55 guns, of which 31 are unserviceable.

Regular police is now provided by Government for the Mehwās estates, in place of the Gaikwār's Contingent, which was disbanded in 1885. The large States maintain a police force of their own. At a time when several of the States were under management during the minority of their chiefs, a system of joint police was established; but this had to be given up as each chief succeeded to his inheritance. In 1903-4 the strength of the police was 1,402 men, of whom 162 were mounted. In the 29 jails and lock-ups, 1,099 prisoners were confined in 1903-4. Police.

The number of boys' schools in 1903-4 was 160, with 6,487 pupils, and of girls' schools 10, with 937 pupils. There are 6 libraries in the Agency, and a printing press at Nāndod for State work. The average daily attendance at the 18 dispensaries maintained was 221 in 1903-4, the total number of patients treated being 80,722. Nearly 15,000 persons were vaccinated in the same year. Education and medical.

Rājpīpla.—State in the Political Agency of Rewā Kāntha, Bombay, lying between 21° 23′ and 21° 59′ N. and 73° 5′ and 74° E., with an area of 1,517½ square miles. It is bounded on the north by the Narbadā river and the Mehwās estates of Rewā Kāntha; on the east by the Mehwās estates of the District of Khāndesh; on the south by the State of Baroda and Surat District; and on the west by Broach District. The extreme length from north to south is 42 miles, and the extreme breadth from east to west 60 miles.

Two-thirds of the State are occupied by a continuation of the Sātpurā range, known as the Rājpīpla hills, nowhere exceeding 3,000 feet in height above the sea, which form the watershed between the Narbadā and Tāpti rivers. Towards the west the hills gradually subside into gentle undulations. The principal rivers of Rājpīpla are the Narbadā, skirting the territory north and west for nearly a hundred miles; and the Karjan, which rises in the hills of the Nānchal *pargana*, and, flowing north into the Narbadā, divides the State into two equal portions. The signs of disturbance in the lines of trap and the great number of dikes seem to show that Rājpīpla was, during the time when trap rocks were poured out, a great centre of volcanic action. Except in the rich western lands, the whole of the State is covered with trees, the chief being teak, black-wood, and *khair*. The climate is exceedingly

unhealthy, malarial fever being prevalent from September to February. The rainfall in 1903-4 was 46 inches.

The family of the Rājpīpla chief is said to derive its origin from one Chokārāna, son of Saidāwat, Rājā of Ujjain, a Rājput of the Paramāra tribe, who, having quarrelled with his father, left his own country and established himself in the village of Pīpla, in the most inaccessible part of the hills to the west of the modern town of Nāndod. The only daughter of Chokārāna married Moker or Mokherāj, a Rājput of the Gohel tribe, who resided in the island of Premgar or Pīram in the Gulf of Cambay. Mokherāj had by her two sons, Dungarjī and Gemarsinghjī. The former founded Bhaunagar and the latter succeeded Chokārāna. Since that time (about 1470) the Gohel dynasty has ruled in Rājpīpla. The Musalmān kings of Ahmadābād had before this taken an agreement from the Rājā to furnish 1,000 foot-soldiers and 300 horsemen; and the agreement remained in force until Akbar took Gujarāt in 1573, when he imposed a tribute of Rs. 35,550 on the country in lieu of the contingent. This was paid until the end of the reign of Aurangzeb (1707), when, the imperial authority declining, the payments became irregular, and, if opportunity favoured, were altogether evaded. Subsequent to the overthrow of the Muhammadan authority, Dāmājī Gaikwār, in the latter part of the eighteenth century, succeeded in securing a half-share of four of the most fertile subdivisions of the territory. These were afterwards released at the cost of an annual payment of Rs. 40,000 to the Gaikwār, and this sum later on was raised to Rs. 92,000. Such rapid and frequent encroachments on the State and internal quarrels led to the intervention of the British Government. About the close of 1821, of two disputants, the rightful claimant Verisaljī was placed on the throne by the British. Under the settlement made in 1823 the State pays an annual tribute of Rs. 50,001 to the Gaikwār, on the understanding that a remission shall be granted in seasons of natural calamity. The State, owing to mismanagement, was placed in the year 1884 under the joint administration of an officer of the British Government and the Rājā. From 1887 to 1897 the administration was entrusted solely to a British officer. The chief, who bears the title of Mahārānā, is entitled to a salute of 11 guns and holds a *sanad* authorizing adoption. The succession follows the rule of primogeniture.

The population at the last four enumerations was: (1872) 120,036, (1881) 114,756, (1891) 171,771, and (1901) 117,175,

the decrease during the last decade being due to the great famine of 1899–1900. The population is distributed between one town, NĀNDOD, the capital of the State, and 651 villages, the density being 77 persons per square mile. Hindus numbered 94,865; Musalmāns, 5,636; and Animists, 16,075. The latter are chiefly Bhīls.

Of the total area one-third is cultivable, and 243 square miles were actually cultivated in 1903–4. Cotton is the most important crop, occupying 53 square miles; while *jowār* occupied 43, *bājra* 29, rice 25, and *kodra* 20 square miles. In the rich alluvial soil in the north and north-west and in the favoured patches in the west, *tur*, castor-oil, millet, cotton, gram, and rice are grown. Experiments for introducing Egyptian cotton are in progress. Among the hills and forests, where Bhīls are the only husbandmen, the chief crops are *tur*, coarse rice, *kodra*, *banti*, and *bavta*. The four last are the Bhīls' chief diet, though, unless three or four times washed, the *kodra* is slightly poisonous, causing giddiness and faintness. Almost all hill crops are grown in scattered forest clearings. The tract covered by forests is about two-thirds of the whole area, including 409 square miles of 'reserved' forest. In the south there are valuable teak forests. Carnelian mines are worked at the foot of a hill near Ratanpur, a village about 14 miles from the city of Broach, where the Marāthās gained a victory over the Mughals in 1705. Iron of good quality used to be manufactured in the same locality, and *akik* stones are exported to Cambay for the manufacture of agate work. A soft stone found in a village in the Vādia *tāluka* is fashioned into grindstones and mortars for export. The State contains two cotton-ginning factories. The Bhīls and other forest tribes make bamboo matting and baskets for sale; otherwise there are no industries of any description. The chief article of trade is teak from the forests. *Mahuā* and sesamum are largely exported, and nearly all the cotton grown in the State is sent to Bombay. A railway, constructed at a cost ot 13 lakhs, and opened in 1899, connects Nāndod with Ankles-var. Its total length in 1903–4 was 235 miles, and it yielded a net profit of Rs. 11,641. In 1899–1902 the State suffered severely from famine, due to short rainfall and the ravages of rats. Nearly 9 lakhs was spent on famine relief on this occasion.

For administrative purposes the lands of the State are distributed in *parganas*, each under a *thānadār*, with considerable revenue, police, and magisterial powers. The chief has

power to try, for capital offences, without the permission of the Political Agent, any person except British subjects. The revenue of the State in 1903-4 was 8·7 lakhs, including receipts from land, forests, and excise. More than Rs. 70,000 is annually spent on public works. The forms of assessment levied are the hoe (*kodāli*) or the billhook (*dātardi*) cess (varying from 8 annas to 2 rupees); a plough tax (*hālbandi*), levied on each plough (varying according to the status of the cultivator from Rs. 5 to Rs. 19); and *bighotis*, or acre rates (ranging from 4¼ annas to Rs. 25). Of the total area, 437 square miles have been surveyed. There is a municipality at NĀNDOD under State management. The chief maintains a military force of 111 men, horse and foot, and 239 police. The State contained in 1903-4 one high school and 81 primary schools, of which 5 were for girls. The boys' schools were attended by 3,417 pupils and the girls' schools by 607. One hospital and five dispensaries and the Nāndod jail infirmary cost Rs. 16,000, and treated 38,100 patients in 1903-4. In the same year 3,280 persons were vaccinated. Nāndod contains a veterinary hospital.

Chota Udaipur.—State in the Political Agency of Rewā Kāntha, Bombay, lying between 22° 2′ and 22° 32′ N. and 73° 47′ and 74° 20′ E., with an estimated area of 873 square miles. It is bounded on the north by the State of Bāriya; on the east by Alī-Rājpur; on the south by petty States in the Sankheda Mehwās; and on the west by Baroda territory. The Orsing river runs through the State, dividing it into two nearly equal portions; the Narbadā washes its southern boundary for a few miles. The country is hilly and overgrown with forest. During the greater part of the year the climate is damp and unhealthy, and fever is prevalent.

The family of the chief are Chauhān Rājputs, who, when driven out of their former territories by the advance of the Musalmāns about the year 1244, entered Gujarāt, and took possession of Chāmpāner city and fort. On the capture of Chāmpāner in 1484 by Mahmūd Begara, they withdrew to the wild parts of their former possessions east of Chāmpāner, one branch founding the State of Bāriya and the other the State of Chota Udaipur. In the disturbances of 1858 the chief refused to hold any communication with Tāntiā Topī when raiding from Northern India, and prepared to defend himself against any attempt to enter his capital. It was when encamped before the town of Chota Udaipur that Tāntiā Topī was defeated by General Parke. The chief bears the title of

Mahārāwal. His house follows the rule of primogeniture, and holds a *sanad* of adoption. He is entitled to a salute of 9 guns. The family moved at one time to Mohan, a most advantageous position for commanding the passes, and built a fort there. Hence the State is sometimes called Mohan. But this capital was abandoned in favour of Chota Udaipur. It was probably in consequence of the defenceless position of the latter place that the chiefs became tributary to the Gaikwār. The political control has since 1822 been transferred to the British Government.

The Census of 1901 returned a population of 64,621, or 74 persons per square mile, living in one town (Chota Udaipur) and 502 villages. Hindus numbered 62,516 and Musalmāns 1,965. During the previous decade the State lost 31 per cent. of its population owing to famine. Of 297 square miles of cultivable area, 77 square miles were cropped in 1903-4. Cotton occupied about 11½ square miles and sesamum 6⅓ square miles. About 225 square miles of the total area are covered by forest. There are no manufactures or mines; but marble and iron exist in the soil, and expert advice is being obtained with a view to their exploitation. The principal exports are timber, cotton, and flowers of the *mahuā* tree. The main route from Mālwā to Baroda and the sea passes through the territory.

The Rājā is a chief of the second class, and has power to try his own subjects for capital offences. The revenue of the State in 1903-4 was about 2 lakhs. A tribute of Rs. 8,908 is payable to the Gaikwār of Baroda, the amount being collected by the British Government. The chief maintains a police force of 257 men, and a mounted military corps of 23 men, who act as a body-guard. There is one jail. The State contains 14 schools with an average daily attendance of 456 pupils, and one dispensary which treated 4,473 patients in 1903-4. In the same year 2,733 persons were vaccinated.

Bāriya State (*Deogarh Bāriya*).—Tributary State in Rewā Kāntha, Bombay, lying between 22° 21′ and 22° 58′ N. and 73° 41′ and 74° 18′ E., with an estimated area of 813 square miles. It is bounded on the east and west by the British District of the Pānch Mahāls; on the north by the State of Sanjeli; and on the south by the State of Chota Udaipur. The extreme length, from north to south, is 39 miles. The country is hilly in the south and east, but flat in the west, and is divided into seven subdivisions—Randhīkpur, Dudhia, Umāria, Haveli, Kākadkhila, Sāgtāla, and Rājgarh. Much

of it is covered with forest. The climate is damp and unhealthy, fever being the prevailing disease.

The chiefs of Bāriya are Chauhān Rājputs, who are said to have been driven south by the advance of the Musalmāns about the year 1244, and to have taken possession of the city and fort of Chāmpāner. Here they ruled till defeated by Mahmūd Begara in 1484, and forced to retire to the wilder parts of their dominions. Of two branches of the family, one founded the house of Chota Udaipur and the other the house of Bāriya. The connexion of this State with the British dates from 1803, when, in consequence of the help given by the chief to the British army in their operations against Sindhia, the Government subsidized a detachment of Bāriya Bhīls at a monthly cost of Rs. 1,800. The State formed part of the Central India Agency up to 1825, when it was transferred to Bombay. The title of the chief is Mahārāwal of Deogarh Bāriya, and he is entitled to a salute of 9 guns. He holds a *sanad* authorizing adoption. Succession follows the rule of primogeniture.

The Census of 1901 showed a population of 81,579, or 100 persons per square mile, living in 483 villages. Hindus numbered 79,149 and Musalmāns 2,301. The chief castes are Bhīls, Kolīs, and Naikdas. Of the total area, only 20 per cent. is cultivated. The principal products are timber, maize, pulse, gram, and wheat. The State contains no mines and no manufactures. The chief has power to try his own subjects for capital offences.

The revenue in 1903-4 was 2 lakhs, of which Rs. 56,000 was derived from land and Rs. 18,000 from forests. The State maintains a quasi-military police force of 180 men. Of the public works constructed before 1876 under British management, the chief are the portion (21 miles in length) of the high road between Mālwā and Gujarāt lying within the limits of the State, and a branch 7 miles long connecting the village of Bāriya with the main road. Since 1892 the Anand-Godhra Railway has been extended to Ratlām, passing through Bāriya territory. The State supports a dispensary, which treated 4,331 patients in 1903-4, and 12 schools for boys, with an average attendance of 427 pupils. There is also one girls' school, with an average attendance of 48.

Lūnāvāda State (or Lūnāwāra).—State in the Political Agency of Rewā Kāntha, Bombay, lying between 22° 50′ and 23° 16′ N. and 73° 21′ and 73° 47′ E., with an area of 388 square miles. It is bounded on the north by Dungarpur State in Rājputāna; on the east by Sunth and Kadāna States

of Rewā Kāntha; on the south by the Godhra *tāluka* of the District of the Pānch Mahāls; and on the west by Idar State (Mahī Kāntha) and Bālāsinor State (Rewā Kāntha). Lūnāvāda is irregular in shape, and has many outlying villages, the territory being much intermixed with that of Bālāsinor and with the British Pānch Mahāls. The extreme length from north to south is 34 miles, and the extreme breadth from east to west 25 miles. The Mahī flows through it. The climate is somewhat cooler than in the neighbouring parts of Gujarāt.

The chief is descended from a Rājput dynasty that ruled at Anhilvāda Pātan, and his ancestors are said to have established themselves at Vīrpur in 1225. In 1434 the family removed to Lūnāvāda, having in all probability been driven across the Mahī by the increasing power of the Muhammadan kings of Gujarāt. Lūnāvāda was tributary both to the Gaikwār and to Sindhia; the rights of the latter ruler, guaranteed by the British Government in 1819, were transferred by him with the cession of the Pānch Mahāls in 1861. Until 1825 the State was under the Political Agency of Mahī Kāntha. The chief (Mahārānā) is a Solanki Rājput, and is entitled to a salute of 9 guns. The family holds a *sanad* authorizing adoption, and follows the rule of primogeniture.

The population at the last four enumerations was: (1872) 74,813, (1881) 75,450, (1891) 90,147, and (1901) 63,967, showing a decrease during the last decade of 28 per cent., due to the famine of 1899–1900. The State contains one town (LŪNĀVĀDA) and 318 villages. Hindus numbered 59,876 and Muhammadans 3,751; the density of population is 165 persons per square mile. The chief castes are Brāhmans, Rājputs, and Kunbīs. About one-third of the area of the State has been alienated, some lands having been granted in free gift, and others on service or other tenures. About 231 square miles are occupied for cultivation, of which 159 were cultivated in 1903–4. The soil is generally stony. Cereals and timber are the chief products. In 1903–4 exports, consisting chiefly of grain, oil, and *ghī*, amounted to 3 lakhs; and imports, consisting of cloth, grain, and sugar, to about the same amount. Irrigation is chiefly from wells, though there are many reservoirs. A well-frequented route between Gujarāt and Mālwā passes through Lūnāvāda.

The chief has power to try his own subjects for capital offences. He enjoys a revenue of about 1·8 lakhs, chiefly derived from land (Rs. 1,25,000), and pays a tribute of Rs. 14,232 jointly to the British Government and the Gaikwār of

Baroda. There is one municipality (LŪNĀVĀDA) with an income in 1903-4 of Rs. 2,776. The police force consists of 177 men, including a military body of 43, who are employed for police and revenue purposes. There is one jail. In 1903-4 the State contained 12 schools, with a daily average attendance of 747 boys and 555 girls. There are two dispensaries, one of which treated 9,000 patients in 1903-4, and the other, which prescribes native medicines only, treated an average of 30 patients a day. Nearly 1,800 persons were vaccinated in the same year.

Bālāsinor State (*Vādāsinor*).—State in the Political Agency of Rewā Kāntha, Bombay, lying between 22° 53′ and 23° 17′ N. and 73° 17′ and 73° 40′ E., with an estimated area of 189 square miles. It is bounded on the north by the States of Mahī Kāntha; on the east by the State of Lūnāvāda and part of the Godhra *tāluka* of the Pānch Mahāls; on the west by Kaira District and a portion of the Parāntīj *tāluka* of Ahmadābād; and on the south by Kaira District. The territory is about 30 miles in length and 10 to 12 in breadth, and is divided into two distinct and nearly equal parts, the Bālāsinor and Vīrpur subdivisions, the former containing 41 villages, the latter 57, much mixed with those of the adjoining State of Lūnāvāda. Except some hilly tracts in the west, the surface is flat. The soil is fertile, and, though fever prevails, the climate is tolerably healthy. There are no rivers of any note except the Mahī.

The family traces its origin to Sher Khān Bābi, a distinguished officer in the Mughal service (1664). The fifth in descent, Salābat Khān, obtained possession of the principality of Junāgarh in Kāthiāwār; on his death his territory was divided, the younger son receiving Junāgarh, and the elder son continuing to hold Bālāsinor. During the ascendancy of the Marāthās in Gujarāt, the State became tributary to both the Peshwā (1768) and the Gaikwār; and in 1818 the British Government succeeded to the rights of the Peshwā, and assumed the political superintendence of Bālāsinor. Placed at first under the supervision of the Collector of Kaira, Bālāsinor has, since 1853, formed part of the territory controlled by the Political Agent of Rewā Kāntha. The chief is entitled to a salute of 9 guns. Succession follows the rule of primogeniture, and there is a *sanad* authorizing adoption. The distinguishing title of the family is Bābi, meaning 'doorkeeper,' that having been the office assigned to the founder, who attained distinction at the Mughal court.

The Census of 1901 showed a total population of 32,618, or

172 persons per square mile, living in 98 villages. Hindus numbered 28,146; Musalmāns, 4,256; and Jains, 215. Numerically, the most important caste is the Kolī. The soil is generally rich, yielding millet, pulse, rice, oilseeds, sugar-cane, and cotton. Of the total area, 89 square miles are occupied for cultivation, of which nearly two-thirds were under crop in 1903–4. Routes from Gujarāt to Mālwā pass through the State.

The Nawāb is a chief of the second class, and has the power to try his own subjects for capital offences without the sanction of the Political Agent. The 'crop-share' system of land revenue prevails in some parts of the State. The revenue is 1¼ lakhs, of which Rs. 72,000 is land revenue. The expenditure is 1·1 lakhs, including tribute of Rs. 15,532 to the British Government and Rs. 3,078 to the Gaikwār of Baroda. The State maintains a quasi-military force of 117 men, of whom 16 are mounted. They are employed for police and revenue purposes. There are 11 boys' schools with a daily average attendance of 384 pupils, and one girls' school with a daily average attendance of 57. The State maintains 2 dispensaries, which treated 10,316 patients in 1903–4. Nearly 700 persons were vaccinated in the same year.

Sunth.—State in the Political Agency of Rewā Kāntha, Bombay, lying between 22° 55′ and 23° 33′ N. and 73° 45′ and 74° 10′ E., with an area of 394 square miles. It is bounded on the north by the Kadāna State of Rewā Kāntha and the States of Dungarpur and Banswāra in Rājputāna; on the east by the Jhālod *tāluka* of the British District of the Pānch Mahāls; on the south by Sanjeli State under Rewā Kāntha and by the Godhra *tāluka* of the Pānch Mahāls; and on the west by Lūnāvāda State. To the north the country is fairly flat and open, crossed by several small streams on their way north to the Mahī; to the south it is rugged, covered with long craggy lines of hills. The Mahī flows through the north-west, and the Pānam through the south-west corner of the State. Near the centre the small stream of the Chibota passes by the village of Sunth, and towards the east the Suki by the village of Rāmpur. A range of hills, of no great height, running in a curve from the Pānam river in the south to the Mahī in the north, divides the State into two parts. Besides this principal range, many other hills run in parallel lines from north to south. The climate is generally unhealthy and malarious.

The family of the chief of Sunth, Ponwār or Paramāra by caste, claims to belong to the Mahipāwat branch of the famous

Mālwā dynasty. This dynasty was driven from Ujjain (it is stated in the tenth century A.D.); and, according to the Sunth bards, Jhālam Singh, a Ponwār from Mount Abu, established his power at Jhālod in the Pānch Mahāls, and gave his name to the town. There is a legend that the emperor, hearing of the exceeding beauty of the daughter of Jhālam Singh, Rānā of Jhālod (the fifth in succession from Jhālam Singh, the founder of the dynasty at Jhālod), demanded her in marriage; and that, on Jhālam Singh declining the alliance, he was attacked by the Mughal army, defeated, and killed. His son, Rānā Sunth, fled for safety to the Sunth jungles, then under the sway of a Bhīl chief called Sutta. In 1255 Rānā Sunth defeated Sutta, and took possession of his capital, then called Brahmapuri. He changed its name to Sunth, and established his own dynasty. According to another tradition, the Sunth family is said to have come from Dhār in Mālwā, when that principality was conquered by the Muhammadans. From 1443 the State was tributary to the Ahmadābād Sultāns, and, on their decline, received some additions of territory. In 1819 Sunth was overrun by Sindhia's troops, and would have been either annexed or laid waste had not the British Government interfered. Through the medium of Sir John Malcolm it was arranged that, on condition of Sindhia withdrawing his troops, Sunth should pay a tribute of Rs. 6,100. The control of the State, vested in the British Government under this arrangement, was in 1826 made over to the Rewā Kāntha Political Agent. The chief is entitled to a salute of 9 guns. The family follows the rule of primogeniture for succession, and holds a *sanad* authorizing adoption.

The population was: (1881) 52,822, (1891) 74,275, and (1901) 39,956, showing a decrease of 46 per cent. during the last decade, due to the famine of 1899–1900. Hindus numbered 38,211 and Muhammadans 1,552. The State contains one town, Rāmpur (population, 3,338), and 87 villages. The capital is Rāmpur, situated on the range of hills that crosses the State from north to south.

The only arable land is in the valleys, where the soil, well charged with moisture, yields without manure two crops a year of ordinary grain. Maize is the staple; and millet, pulse, gram, wheat, and in a few well-favoured spots sugar-cane are also grown. The forests yield a large supply of timber. Irrigation is carried on from tanks and wells. In 1903–4 the value of exports from the State was 2 lakhs and of imports Rs. 90,000.

The chief has power to try his own subjects for capital

offences without the permission of the Political Agent. He enjoys a revenue of about $1\frac{1}{4}$ lakhs, and pays a tribute of Rs. 5,384-9-10 to the British Government. The State contains one municipality, Rāmpur, with an income in 1903-4 of Rs. 228. There is no organized military force; but a body of 13 Arabs act as guards of the palace, 5 men of the foot police act as gunners in addition to their ordinary duties, and 39 *pattāwats* hold villages on feudal tenure. In 1903-4 the police numbered 155. The State contains one jail, and a dispensary treating annually about 6,000 patients. In 1903-4 there were 11 schools with 494 pupils, of whom 60 were girls.

Bālāsinor Town.—Chief town of the State of the same name in the Rewā Kāntha Agency, Bombay, situated in 22° 59′ N. and 73° 25′ E., near the Shedi river, about 41 miles east of Ahmadābād. Population (1901), 8,530. The town is surrounded by a stone wall with flanking bastions and four gates. On the high ground to the north stands the Nawāb's palace. On a hill 3 miles from the town an annual fair is held in August in honour of Dungaria Mahādeo. The town is administered as a municipality.

Bāriya Village (*Deogarh Bāriya*).—Chief town of the State of the same name in the Rewā Kāntha Agency, Bombay, situated in 22° 42′ N. and 73° 51′ E., 50 miles north-east of Baroda, and 5 miles from Linkheda on the Godhra-Ratlām branch of the Bombay, Baroda, and Central India Railway. Population (1901), 3,717. It lies almost in the centre of the State, about half a mile from the Panām river, in an angle formed by two lines of hills. The third side is enclosed by a wall built by Rājā Prithwirāj. About the end of the eighteenth century the town seems to have been of considerable importance. It was on a much-frequented route between Gujarāt and Mālwā, the tolls levied at its gates generally exceeding Rs. 20,000 a year. Partly on the Deogarh hill and partly in the plain stands the Bāriya fort, with walls about 10 feet high in the plain and 6 feet on the hill slopes. On the top of the hill a small white building contains the tutelary deity of the Bāriya house. The story is that three generations after the fall of Chāmpāner, when Dungar Singh was looking for a site for his capital, one of his Bhīls, cutting wood on a hill, struck his axe against two round stones, blood gushed out, and the axe was shivered. Hearing his story, Dungar Singh visited the spot, called it Deogarh or 'God's fort,' installed the stones as the tutelary deity of the hill, and founded his capital at its

foot. The stones are still visited with great pomp by the Rājā every twelfth year.

Chāndod.—Village and place of pilgrimage in the Rewā Kāntha Agency, Bombay, situated in 21° 58′ N. and 73° 29′ E., on the right bank of the Narbadā, 30 miles south-east of Baroda, and 12 miles south of Dabhoi, with which it is connected by a section of the Gaikwār's narrow-gauge Dabhoi Railway. Population (1901), 2,613. Close to Chāndod is the village of Karnāli. Both these villages, with their temples and certain sacred spots on the river, are visited twice a year by more than 20,000 pilgrims. The chief occasions are the full moon of Kārtik (October–November) and the full moon of Chaitra (March–April). What James Forbes wrote (*Oriental Memoirs*) 120 years ago is still true :—

> 'No place in the western province of Hindustān is reputed so holy as Chāndod : none at least exceeds it ; its temples and seminaries almost vie with the fane of Jagannāth and the college of Benares.'

The ownership of the village vests jointly in the Gaikwār of Baroda and the Māndwa chief in Rewā Kāntha.

Lūnāvāda Town.—Capital of the State of the same name in the Rewā Kāntha Agency, Bombay, situated in 23° 8′ N. and 73° 39′ E., about 4 miles east of the confluence of the Mahī and Pānam rivers, and a mile north of the latter stream. Population (1901), 10,277. The town was founded by Rānā Bhīm Singhjī in 1434. According to the local legend, the chief one day went hunting across the Mahī, and, having become accidentally separated from his companions, found himself near the hut of a *sādhu* or ascetic. He presented himself before the recluse, saluted him reverentially, and remained standing until bidden to be seated. The *sādhu* was pleased with his demeanour, and, auguring a great future for him and his descendants, advised him to build a city in the forest. He told him to proceed in an easterly direction, and to mark the point where a hare would cross his path. The Rānā did as directed, a hare soon jumping out of a bush. The Rānā pursued and killed it with a spear, and marked the spot, which, it is said, is now within the precincts of the palace. The *sādhu* was a devotee of the god Lūneswar, in honour of whom the Rānā called the town Lūnāvāda. The shrine of the god still stands outside the Darkuli Gate. About the beginning of the nineteenth century the town was a flourishing centre for traffic between Mālwā and Central Gujarāt. Its artisans were remarkable for their skill, and a brisk trade

in arms and accoutrements went on. The municipality has an income (1903-4) of Rs. 2,776, of which Rs. 500 is devoted to the upkeep of a public park. A road has been constructed to Shera, a British village 15 miles north of Godhra, on the Godhra-Ratlām branch of the Bombay, Baroda, and Central India Railway; and a private service of tongas has been established for the benefit of passengers to and from Lūnāvāda. Two fairs of local importance, one in August and the other in February, are held close to Lūnāvāda on the Pānam river.

Nāndod.—Capital of the State of Rājpīpla, in the Rewā Kāntha Agency, Bombay, situated in 21° 54′ N. and 73° 34′ E., about 32 miles east-by-north from Surat, on rising ground in a bend of the Karjan river. Population (1901), 11,236. As early as 1304 the Muhammadans are said to have driven the Nāndod chief from his capital, and made it the head-quarters of one of their districts, building a mosque and issuing coin. The chief, though he had, since the fall of the Muhammadan power (1730), recovered most of his territory, never brought back his capital from Rājpīpla to Nāndod until 1830. Nāndod was formerly celebrated for its cutlery, sword-belts, and *sāmbar*-skin pouches. There is at the present day a weaving industry in coarse country cloth and tape. Nāndod is a municipality, managed by the State, with an income (1903-4) of Rs. 7,531, and a high school with 149 pupils. There are small water-works, intended mainly as a protection against fire; and the chief is now engaged upon a scheme for a supply of drinking-water. The public buildings include a gymnasium and public library, and the Shewan memorial clock-tower.

Cambay (*Khambāyat* or *Khambhāt*).—Feudatory State in the Political Agency of Kaira, Bombay, lying at the head of the gulf of the same name, in the western part of the province of Gujarāt, between 22° 9′ and 22° 41′ N. and 72° 20′ and 73° 5′ E., with an area of 350 square miles. It is bounded on the north by the District of Kaira; on the east by Kaira and Baroda; on the south by the Gulf of Cambay; and on the west by the Sābarmatī river, separating it from Ahmadābād. The boundaries of the State are very irregular: some villages belonging to the Gaikwār of Baroda and to the British Government are entirely surrounded by Cambay territory, while Cambay villages are found in Kaira District. The country is flat and open, interspersed here and there, generally in the vicinity of the villages, with groves of fine trees, such as the mango, tamarind, banyan or *bar*, *nīm*, and *pīpal*. From the position of the State between the Sābarmatī and Mahī,

Physical aspects.

both of which are tidal rivers, the soil is so soaked with salt that the water becomes brackish at a little distance below the surface.

Geology, fauna, and climate.

Cambay is a gentle, undulating, alluvial plain, without any rock exposure. The fauna does not differ from that of the neighbouring British District of Kaira, though the former presence of tigers in large numbers is said to be indicated by the site of a village named Vāgh Talao or 'tiger tank.' The climate is equable, the temperature rising to 108° in May, when the minimum is 75°, and falling as low as 46° in January, at which season 84° is the maximum. The annual rainfall averages 31 inches.

History.

The name is said to be derived from *khambha* or *stambha-tīrth*, the pool of Mahādeo under the form of the pillar god. Cambay is mentioned by Masaudi (913); but the prosperity of the town is traditionally referred to the grant of its present site to a body of Brāhmans in 997. During the eleventh and twelfth centuries Cambay appears as one of the chief ports of the Anhilvāda kingdom; and at the conquest of that kingdom by the Musalmāns in 1298 it is said to have been one of the richest towns in India.

According to Lieutenant Robertson's *Historical Narrative of Cambay*, the Pārsīs of Gujarāt sailed from Persia about the end of the seventh or beginning of the eighth century. A great number of their ships foundered in a storm, and only a few arrived at Sanjān, about 70 miles south of Surat. They obtained permission to land after some difficulty, and on certain conditions, the chief of which were that they should speak the Gujarātī language and abstain from beef. The Pārsīs remained for many years in the vicinity of Sanjān, pursuing a coasting trade; but eventually they spread over the neighbouring districts, and became so numerous at Cambay that they outnumbered the original inhabitants and took possession of the town. After a short period, however, they were driven out with great slaughter by the Hindus, who held the territory until conquered by the Muhammadans in 1298.

In the fifteenth century, with the growing wealth and power of the Gujarāt kingdom, Cambay regained its former prosperity, and at the beginning of the sixteenth century formed one of the chief centres of commerce in Western India. Large vessels unloaded their cargoes at Gogha, whence they were conveyed in small craft to Cambay. In 1538 the Portuguese plundered the town, and the country remained in a state of disorder until 1573, when it was reduced by the emperor Akbar. Though

free from disturbance during the next century, the gradual silting up of the harbour drove a large part of the Cambay trade to Surat. Its manufactures, however, still retained their former importance; and in 1616 the English, followed by the Dutch in 1617, established factories there. On the death of Aurangzeb, when the Mughal power commenced to decline, the country was exposed to the ravages of the Marāthās, who exacted large contributions. Cambay appears to have been established as a distinct State about 1730. The founder of the present family of chiefs was Momin Khān, the last but one of the Muhammadan governors of Gujarāt. While he held the office of governor, his son-in-law Nizām Khān had charge of Cambay. On Momin Khān's death in 1742 his son Muftākhir (Momin Khān II) basely compassed the death of Nizām Khān and assumed the government of Cambay. The Marāthā leaders had already partitioned Gujarāt; but Momin Khān II success fully resisted the claims of the Peshwā to tribute, until, by the Treaty of Bassein, the Peshwā's rights over Cambay were transferred to the British. The principal item of this disputed tribute consisted of a nominal half-share in the sea and land customs, deducting cost of collection. The British Government found much difficulty in inducing the Nawāb to revise the complicated and onerous tariff of sea customs, which was highly injurious to trade; but in 1856 an arrangement was made by which the methods of collection were assimilated to those obtaining in civilized countries.

The ruler is a Muhammadan of the Shiah sect. He has received a *sanad* guaranteeing any succession to his State that may be legitimate according to Muhammadan law. He is entitled to a salute of 11 guns. A tribute of Rs. 21,924 is paid to the British Government.

Population.

Cambay contains 2 towns and 88 villages. The population was 89,722 in 1891, but fell to 75,225 in 1901, owing to the severe famine of 1899–1900. The density is 215 persons per square mile. Hindus form 81 per cent. of the total, Musalmāns 13 per cent., and Jains 5 per cent. The only important town is CAMBAY. The most numerous Hindu castes are Kolīs (14,000), Kunbīs (12,000), and Rājputs (5,000). They are mainly cultivators, though Kunbīs now work as carnelian polishers, an art formerly practised by the Musalmāns. Pārsīs have ceased to be of importance, and the decline of trade has taken many of the trading castes to Bombay. Nearly half the population (30,000) is supported by agriculture. The Irish Presbyterian Mission has a branch at Cambay.

Agriculture.

Towards the north and west the soil is generally black, and well suited for the cultivation of wheat and cotton. To the east it is fit only for inferior sorts of grain, abundant crops of which are grown in favourable years. Of the total area, 84 square miles are unfit for cultivation and 224 are cultivable. Of the latter, 154 square miles were under cultivation in 1903–4, the residue being composed of fallow (11 square miles) and cultivable waste (59 square miles). Only 903 acres of land were irrigated. The chief crops are the ordinary varieties of millets and pulse, rice, wheat, cotton, indigo, and tobacco. The cultivation of indigo has of late years greatly fallen off. Besides the Nareshwar tank and the Alang canal, there are 1,292 wells and 36 tanks for irrigation purposes. The supply of drinking-water is chiefly drawn from wells, in which water is found throughout the greater part of the year. Near the town of Cambay, skirting the shore of the gulf, and along the banks of the Mahī and Sābarmatī rivers, stretch vast tracts of salt marsh land submerged at high spring-tides. About three-quarters of a square mile of salt-waste is in process of reclamation by means of an embankment built along the seashore, which holds up rain-water.

Arts and manufactures.

The chief articles of manufacture are salt, cloth, carpets, embroidery, and carved carnelians, which are imported from Ratanpur and other places in the Rājpīpla State. The chocolate-coloured stone is brought from Kāthiāwār; agates come from Kapadvanj and Suklatirtha on the Narbadā river, and from Rājkot in Kāthiāwār. There are two cotton-ginning factories and 1,400 hand-looms, supporting over 3,000 persons. An experimental school for weaving was opened in 1904.

Trade.

During the thirteenth, fourteenth, and fifteenth centuries Cambay had a trade history of much interest. At the close of the thirteenth century it was one of the two chief ports of Western India, whence were exported indigo in abundance, cotton, fine cloth, and large quantities of hides. Its chief imports were gold, silver, copper, *tūtia* (copper sulphate), madder from the Red Sea, and horses from the Persian Gulf. By the opening of the sixteenth century Cambay had added many other articles to its export list, and had dealings with fifteen marts in India, Persia, Arabia, and East Africa. The transfer of trade to Surat at the close of the sixteenth century dealt a severe blow to Cambay's importance, and by 1802 its trade had dwindled to a very low ebb. Trade revived during the nineteenth century and was valued at one lakh in 1874–5. The total imports in 1897–8, previous to the severe famine

of 1899–1900, consisted chiefly of molasses, timber, clarified butter, grain, carnelians, metal, piece-goods, silk, coco-nuts, and sugar, and were valued at more than 5 lakhs; while the exports, including tobacco, wrought carnelians, and sundries, were worth 4 lakhs. The total value of the sea-borne trade in 1903–4 was 6·5 lakhs. Before the advent of railways, goods and passengers were carried by boat to Bombay and other ports. Now the passenger traffic is almost entirely by rail. The mode of transit into the interior by native carts, camels, or pack-bullocks has been discontinued since the opening of a railway from Cambay to Petlād. For communication by water, except during the monsoon months, boats of under 6 tons at ordinary tides, and under 50 tons at spring-tides, ply between Cambay and Bombay, Surat, Broach, Gogha, and other ports. The head of the gulf forms neither a safe nor commodious harbour, in consequence of the constant shifting of its bed from the force of the tides and the currents of the Mahī and Sābarmatī rivers. Ships of more than 50 tons never visit Cambay. The lightship at the port exhibits a steady white light over an area of 8 miles.

Communications. Railways and roads. There are 45 miles of unmetalled roads in the State, the two longest being from Cambay to Golana (16 miles) and from Cambay to Kanavada (16½). The Cambay-Petlād Railway, a broad-gauge line 22·42 miles in length, connecting with the Bombay, Baroda, and Central India Railway at Anand, was opened in 1901 at a cost of 15 lakhs, of which the State contributed 9. There is only one post and telegraph office in the State.

Famine. In 1899–1900 Cambay suffered severely from famine. Relief measures commenced in October, 1899, and were closed in July, 1900, though gratuitous relief was continued till the end of January, 1901. The highest number of persons on the relief works was 3,174 in February, and of persons gratuitously relieved, 1,948 in June. More than Rs. 80,000 was spent on relief, of which Rs. 48,371 was devoted to works and Rs. 32,432 to gratuitous relief. The loss of cattle is estimated at more than 30,000 head.

Administration. The Nawāb exercises full jurisdiction within the State, but cannot try British subjects for capital offences without the Political Agent's permission. The Collector of Kaira exercises the usual political control, but does not ordinarily entertain appeals.

The State has a revenue of 5½ lakhs and an expenditure of 4 lakhs, of which Rs. 65,000 go into the chief's purse. The

chief sources of revenue are land, excise, and customs. The land revenue is regulated by a survey settlement introduced in 1894, which replaced the old *bhāgbatai* system of payment in kind. The settlement increased the revenue by nearly half a lakh. The survey rates are: for 'dry' land, from Rs. 3-3 to Rs. 6 per acre; for rice land, from Rs. 6-6 to Rs. 10; while garden rates are merged in the 'dry-crop' rates in the shape of a subsoil water assessment. The total land revenue demand amounts to 3 lakhs, while the local fund cess of half an anna per rupee of assessment brings in Rs. 14,000. In 1901-2 British currency was substituted for the State coins. In 1880 the Cambay salt-works were closed, the output since then being restricted to the requirements of the Darbār, namely, 500 maunds. No opium may be produced in the State. Excise arrangements have been controlled by the State since 1904, the previously existing lease to the British Government having expired in that year. During the last ten years the State has spent more than 6 lakhs on public works, including many schools, roads, and a dispensary.

The military force consists of 236 men, for the most part undisciplined. The police number 170, exclusive of village watchmen numbering 366. The State contains one jail, with a daily average in 1903-4 of 25 prisoners. Public instruction is imparted in 26 schools, including a high school and two girls' schools, the total number of pupils in 1903-4 being 1,880. Besides these, 15 private schools have 551 pupils. There are 2 hospitals and 2 dispensaries, treating about 33,000 patients a year at a cost of Rs. 7,000. A veterinary dispensary is also maintained at a cost of Rs. 1,000. More than 1,400 persons are vaccinated annually.

Cambay Town (*Khambāyat* or *Khambhāt*).—Capital of the State of Cambay, Bombay, situated in 22° 18′ N. and 72° 40′ E., at the head of the Gulf of Cambay, on the north of the estuary of the Mahī river, 52 miles south of Ahmadābād. Population (1901), 31,780—including 21,975 Hindus, 6,584 Muhammadans, 3,063 Jains, 23 Christians, and 134 Pārsīs. The city was originally surrounded by a brick wall perforated for musketry, flanked with irregular towers without fosse or esplanade; but the works are now out of repair, and few of the guns mounted are serviceable. Only portions of the wall remain, enclosing a circumference of not more than 3 miles. The palace of the Nawāb is in good repair, but built in an inferior style of architecture. The Jāma Masjid was erected in 1325, in the time of Muhammad Shāh; the pillars in the

interior were taken from desecrated Jain temples, and, though arranged without much attention to architectural effect, give a picturesque appearance. Many ruins still attest the former wealth of Cambay. It is mentioned, under the name of Cambaet, as a place of great trade by Marco Polo (*circ.* 1293), and by his countryman and contemporary Marino Sanudo, as one of the two great trading ports of India (Cambeth).

The commercial decline of this once flourishing mart is due in great measure to the silting-up of the gulf, and to the 'bore' or rushing tide in the north of the gulf and at the entrances of the Mahī and Sābarmatī rivers. High spring-tides rise and fall as much as 33 feet, and the tide runs at a velocity of from 6 to 7 knots an hour. In ordinary springs the rise and fall is 25 feet, and the current 4½ to 6 knots. Great damage is thus frequently caused to shipping, the more so as the average depth of the channel is only from 4 to 6 fathoms; and the hazard is greatly increased by the constantly shifting shoals, caused by the frequent inundation of the rivers.

Cambay is celebrated for the manufacture of agate, carnelian, and onyx ornaments. The carnelians come chiefly from mines in the vicinity of Ratanpur, in the State of Rājpīpla, Rewā Kāntha Agency. The preparation of the stones was thus described in 1821 by Mr. J. Willoughby, Assistant to the Resident at Baroda:—

> 'The Bhīls, who are the miners, commence their operations about September and leave off in April, when they commence burning the carnelians. The operation of burning is performed by digging a hole, one yard square, in which are placed earthen pots filled with the carnelians, which, to facilitate the process, have for some time previous been exposed to the sun. The bottoms of the pots are taken out, and a layer of about 6 or 7 inches of cow or goat-dung, strewed above and below them, is set on fire, which, when consumed, has rendered the stones ready for the Cambay merchants.'

The three principal colours of the carnelians are red, white, and yellow, the first of which is considered the most valuable.

The town is administered as a municipality, with an average income of about Rs. 7,000 (chiefly derived from octroi), which is augmented by a contribution from the State revenues. The public institutions include an experimental weaving-school, two hospitals, a high school, and the Lord Reay public library.

Tārāpur.—Town in the State of Cambay, Bombay, situated in 22° 29′ N. and 72° 44′ E., about 12 miles north of Cambay town. Population (1901), 4,438. Tārāpur is a station on the railway, and contains a dispensary and a school.

Surat Agency.—A small group of Native States in Bombay, under the political superintendence of the Collector of Surat, with an area of 1,960 square miles, consisting of the Sīdī principality of SACHĪN, which comprises a number of isolated tracts within the British District of Surat; the estates of the Rājās of BĀNSDA and DHARAMPUR, situated in the hilly tracts between the Districts of Khāndesh, Nāsik, Thāna, and Surat; and a tract known as the DĀNGS recently added to the Agency. Population (1901), 179,975. The Agency contains 2 towns and 644 villages. Hindus numbered 173,613 and Muhammadans 5,537. The aggregate revenue of the States in 1903–4 was about 12½ lakhs.

Dharampur State.—Native State in the Surat Political Agency, Bombay, with an area of 704 square miles. It is bounded on the north by the Chikhli *tāluka* of Surat District and the State of Bānsda; on the east by the State of Surgāna and the Dāngs; on the south by Nāsik District; and on the west by the Bulsār and Pārdi *tālukas* of Surat District. The territory is 40 miles long from north to south, and 20 in breadth from east to west.

Only a small portion of the State is cultivable; the rest is hilly, rocky, and covered with forest and brushwood. Dharampur is well supplied with rivers. The Damānganga, the Kolak, the Pār, the Auranga, and the Ambika flow through the State on their way to the Gulf of Cambay. Except in Dharampur town and a few other villages, where there are reservoirs, wells and river pools are the only source of water-supply. The annual rainfall is estimated at over 75 inches. The climate is very unhealthy.

It is probable that the territory of Dharampur, or Rāmnagar, as it was originally called, was once much more extensive than now, stretching westward as far as the sea-coast. In 1576 the chief of Rāmnagar went to meet Akbar's minister Todar Mal at Broach, and accepted military rank at his hands. Seventy-two of the Dharampur villages were wrested from the State by the Marāthās early in the eighteenth century. The claims of the Peshwā on the revenues of the State were ceded to the British under the terms of the Treaty of Bassein (1802), and the State now pays a tribute of Rs. 9,000 to the Government. The ruling family are Sesodia Rājputs; they follow the rule of primogeniture in point of succession, and hold a *sanad* authorizing adoption. The chief is entitled to a salute of 9 guns.

The State contains one town, DHARAMPUR, and 272 villages.

The population in 1901 was 100,430, including 98,290 Hindus, 1,858 Musalmāns, and 229 Pārsīs.

Towards the west poor black soil is found, which becomes even poorer in the east. In 1903–4 the area occupied for cultivation was 131 square miles. Forests cover 229 square miles. The principal forest products are *mahuā* flowers, teak, black-wood, and bamboos; the crops are rice, pulse, gram, and sugar-cane; the manufactures are mats, baskets, fans, molasses, catechu, and pottery. A cart-road, passing southwards through Peint, connects the State of Dharampur with Nāsik Road on the Great Indian Peninsula Railway, while another rougher track running westwards, and passable for carts, joins it with Bulsar on the Bombay, Baroda, and Central Indian Railway.

The chief has power to try his own subjects for capital offences. Civil justice is administered by four courts. Persons convicted of murder are punished with imprisonment for life. The chief administers the State himself, and maintains no regular troops, but has 199 irregulars, besides a police force of 131 men, including 26 excise police. The land revenue and liquor contracts are farmed, and the farmers, as a rule, pay partly in cash and partly in grain and grass. There are many cesses, which are generally included in the gross sum leviable from the village householders. Land is not liable to be sold for private debts. A survey settlement has recently been completed. The present maximum rates per acre are 12 annas to Rs. 1–12 for 'dry' land, and Rs. 3 to Rs. 16 for rice land. The State had a gross revenue of over 6½ lakhs in 1903–4, including a loan of 2½ lakhs; the expenditure amounted to 6½ lakhs, including 3·8 lakhs as repayment of loan and interest. The chief items of receipts are land revenue (about 2 lakhs), excise (1 lakh), and forest (Rs. 48,000). The expenditure comprises public works, Rs. 45,000; *darbār* expenses, about Rs. 18,000; allowances to the chief's family, over Rs. 28,000; and police, Rs. 16,000. In 1903–4 there were 23 schools with 790 pupils. The State contains a dispensary which treated 11,000 patients in 1903–4, and a leper asylum with 37 inmates. In the same year 3,000 persons were vaccinated.

Bānsda State (*Wānsda*).—State in the Political Agency of Surat, Bombay, lying between 20° 42′ and 20° 56′ N. and 73° 18′ and 73° 34′ E., with an area of 215 square miles. It is bounded on the west by Surat District; on the north by the State of Baroda; on the east by the Dāng States; and on the south by the State of Dharampur. With the exception of a few villages bordering on Surat, almost the whole country is

covered with forest, the surface in some places being level and in others rising into rocks and small hills. The annual rainfall averages about 80 inches. The climate is unhealthy, fevers and other diseases prevailing throughout the year. At Unai, on the border of Bānsda and Baroda territory and 7 miles from Bānsda, is a hot spring, the temperature of which is generally but little below boiling-point; but once a year, at the time of the March full moon, the heat abates sufficiently to allow a company of pilgrims and devotees to bathe in it. The fair at this period is attended by 6,000 or 7,000 people and lasts for six days.

The family of the chief are Hindus of Rājput extraction, claiming descent from the Solanki race. The ruins of the fortified enclosure near Bānsda, and of several temples and irrigation works, point to a former period of prosperity. At one time the chiefs probably had possessions extending to the sea-coast; but by the advance of the Musalmāns they were gradually driven to seek refuge in the more thickly wooded part of their dominions. The Marāthās seem to have been the first to bring the chiefs entirely into subjection and to impose a tribute upon them. The right of levying this tribute was transferred by the Peshwā to the British under the Treaty of Bassein (1802). The State now pays to the Government a tribute of Rs. 7,351 and a *chauth* of Rs. 1,500. The chief bears the title of Rājā and is entitled to a salute of 9 guns. The family follows the rule of primogeniture and has received a *sanad* authorizing adoption.

According to the Census of 1901, the population numbered 40,382—including 39,256 Hindus, 974 Musalmāns, and 104 Pārsīs—distributed in one town (BĀNSDA) and 86 villages. The population consists almost entirely of wild tribes, such as Koknas, Chodhrās, Dhondias, and Gamtas, who speak a corrupt Gujarātī.

There are some tracts of black soil, but over the greater part of the State the soil is light-coloured. The total cultivable area is 109 square miles, of which 56½ square miles were cultivated in 1903–4, 50 remained waste, and the remainder had been alienated. The chief crops are rice, *nāgli*, *kodra*, and pulse. Cotton and wheat have recently been introduced and are progressing well. About 75 square miles of land are under forest, managed on the British system of conservancy. The chief manufactures are cotton tape, mats, fans, baskets, and coarse woollen carpets and cloths.

The Rājā has power to try his own subjects for capital

offences. He maintains no regular troops, but has a force consisting of 34 mounted men and 33 Arabs who perform miscellaneous duties about the court. The number of police is 131. The State contains one jail, with a daily average of seven prisoners in 1903-4. Formerly the land revenue system consisted in leasing groups of villages to contractors (*ijāradārs*) for terms of five years. But when in 1876 Bānsda came under British administration on account of the minority of the chief, it was determined, as the leases fell in, to replace them by a settlement direct with the cultivators. Since the introduction of survey operations, which were completed in 1884, the lands have been systematically classed and assessed. The rates per acre now in force range from Rs. 2-5 to Rs. 11-4 for rice land, and from 2 annas to Rs. 4-6 for 'dry crops.' The gross revenue and expenditure of the State in 1903-4 were about $3\frac{1}{2}$ lakhs and $2\frac{1}{5}$ lakhs respectively, including one lakh as special charges. The principal items of revenue are land and excise, each over a lakh; forests, Rs. 10,000; and a sum of about Rs. 3,400 paid by the Baroda State and the British Government. In 1873 the Rājā agreed to abolish transit duties for an annual payment of Rs. 8,698 from the British Government. There are fourteen boys' schools and one girls' school in the State, maintained at a cost of Rs. 5,271, with an average daily attendance in 1903-4 of 416. Only 1,289 persons were returned as literate in 1901. The boys of the wild tribes are allowed free education in the State schools. Bānsda contains a hospital and a travelling dispensary, which together treated 28,000 persons in 1903-4. The expenditure of the Bānsda municipality is wholly borne by the State.

Sachīn State.—State in the Surat Political Agency, Bombay. The villages constituting the State are much scattered, some of them being surrounded by British territory, and others by portions of the Baroda State. Sachīn may, however, roughly speaking, be said to lie within the limits of the British District of Surat.

The Nawāb of Sachīn is by descent a Habshi or Abyssinian. When his ancestors first came to India is doubtful; but they were long known on the western coast as the Sīdīs of Danda-Rājpuri and Janjīra. They were also the admirals of the fleets of the kings of Ahmadnagar and Bijāpur, in the Deccan, while those dynasties lasted, and subsequently of the Mughal emperors, being appointed to that office by Aurangzeb about 1660, with an annual assignment of 3 lakhs on the Surat revenues for their maintenance. On the decline of the Mughal

empire the Sīdīs became notorious pirates, plundering the ships of all nations, except the British, whose friendship they appear to have early cultivated. The branch of the family who had their head-quarters at the island of Janjīra remained chiefs of that place during the wars between Sivajī and the Mughals, and between the Marāthās and the British Government. During these wars different members of the family were alternately supported by either party as best suited its own interest. Towards the end of the eighteenth century Bālu Miā Sīdī, the heir to the throne of Janjīra and to the other possessions of the Sīdīs, was expelled from his dominions by a younger branch of the family. He appealed for aid to the Marāthās and the British. The Peshwā being desirous of obtaining Janjīra, an arrangement was come to in 1791 by which Bālu Miā ceded to the Peshwā Janjīra in return for Sachīn. Bālu Miā duly took possession of his new State of Sachīn; but when the Peshwā claimed Janjīra, the Sīdīs who held it refused to give it up, and succeeded in maintaining their independence. Sachīn remained in the hands of Bālu Miā and his descendants; while Janjīra is still held by the younger branch of the family who had ousted Bālu Miā, the Peshwā never having been able to establish his influence. Janjīra is reckoned as a maiden fortress to this day. A full account of the transactions between the British, the Peshwā, and the rival rulers of Janjīra and Sachīn will be found in Aitchison's *Treaties*, vol. iv, pp. 311 et seq. (1876 ed.).

The chief is entitled to a salute of 9 guns. The family holds a title guaranteeing any succession legitimate according to Muhammadan law, and succession follows the rule of primogeniture.

The State contains 21 villages, and occupies an area of about 42 square miles, with a population in 1901 of 20,530. Hindus numbered 17,581; Muhammadans, 2,604; and Pārsīs, 238.

The soil varies from black to light. The arable land in the State amounts to 34 square miles, of which 33 were actually cultivated in 1903–4. The usual cereals are grown, as well as cotton and sugar-cane. Irrigation is carried on from tanks and wells. There are no forests in the State. Cotton yarn and coarse cloth are manufactured. A breakwater at Dumas, and a causeway at Bhīmpur, by keeping back sea-water, have contributed towards the reclamation of a considerable area of hitherto uncultivable salt land.

The chief has power to try his own subjects for capital offences. At present the State is in charge of an Administrator,

who also disposes of civil suits. There are two criminal courts, and the police force numbers 60. The State contains a jail. A survey and land settlement were completed in 1883. On the whole, the rates fixed were higher than in neighbouring British villages, but much lower than the ryots had hitherto paid. The gross revenue in 1903–4 amounted to over 2 lakhs, of which 1·1 lakhs was derived from land and Rs. 36,000 from excise. The expenditure amounted to $1\frac{1}{2}$ lakhs. In 1903–4 the State contained 19 schools with 1,501 pupils, and two dispensaries treating annually 7,000 persons.

Dāngs, The.—A tract of country in the Surat Political Agency, Bombay; bounded on the north by Baroda State, on the south by Nāsik District and Surgāna State, on the east by Khāndesh and Nāsik Districts and Baroda State, and on the west by Bānsda State in the Surat Agency, Baroda State, and Nāsik District. The Dāngs consist of fourteen petty estates, ruled by Bhīl chieftains, extending from 20° 22′ to 21° 5′ N. and from 73° 28′ to 73° 52′ E., with an estimated area of about 999 square miles. The extreme length from north to south is 52 miles, and the breadth 28 miles.

As a whole, the country presents the aspect of a large and almost unbroken forest. It is extremely hilly, walled in almost entirely by hills on all sides, and broken by deep ravines, through which, the Ambika, Purna, Kapri, and Girra rivers and their tributaries flow down towards Surat District. The highest elevation is 4,358 feet. Towards the centre and west the densest forests, and to the east the largest clearings, are found. The rock consists of various forms of trap; and though the mineral resources have not been closely examined, it is not probable that they are very valuable. In the valleys and depressions good black soil is often found, while on the slopes and uplands it is generally reddish in colour, or, if dark, full of boulders. Timber (teak and various other useful species), bamboos, and minor forest produce are by far the most important products. *Nāgli* and inferior rice are the chief crops, but superior food-grains are being introduced. The people depend to a considerable extent on game, fish, roots, and berries, &c. They are well provided with cows and bullocks, but buffaloes and goats are rare, and sheep are never seen. The rainfall is heavy, probably 100 inches or more, but reliable data regarding both rainfall and temperature are not available. Throughout the rains and cold season (June 15 to February 15) the country is very unhealthy, few natives from outside being able to keep well for long during this period. From the

middle of February to the middle of June the Dāngs are healthy, and, except in some of the valleys, not unpleasantly hot. Malarial fever, dysentery, and colds are the commonest complaints. About one-fourth of the population are Bhīls, and the rest Koknis and Vārlis. Not one of them can read or write. They are polite, lazy, and addicted to the use of *mahuā* liquor. Their occupations are cultivation, hunting, and fishing; but they have recently taken readily to labour, and now work willingly on roads, buildings, and to some extent on timber operations. Formerly they changed their villages very frequently; now they are gradually being induced to settle down. Under the former native governments the Bhīls were the terror of the neighbouring districts, and on occasions the most indiscriminate vengeance was wreaked on them for their habitual depredations. On the occupation of Khāndesh by the British in 1818, anarchy was at its height—the roads were impassable, villages were plundered, and murders committed daily, the only protection the inhabitants of the plains could obtain being through regular payment of blackmail. An expedition was sent into the Dāng country, but at the end of three months less than half the force marched back into Mālegaon, the others having succumbed to the malaria of the jungle. At that time Captain (afterwards Sir James) Outram came among the Bhīls. First conciliating them with feasts and his prowess in tiger-shooting, he eventually succeeded in forming a Bhīl corps, originally based on nine men who had accompanied him on shooting expeditions. In 1827 this Bhīl corps numbered 600 rank and file, who fought boldly for the Government and suppressed plundering. Crime is now rare. The few offences that occur are mainly cases of illicit distillation, and the roads are as safe as in settled British Districts. The only police force maintained in the Dāngs consists of seven constables stationed at Ahwa.

There are fourteen petty estates in the Dāngs, as shown on the next page. All are held by Bhīl chiefs, of whom four claim the title of Rājā; the others are styled Naiks, Pradhāns, or Ponwārs. All are practically independent, though a nominal superiority is awarded to the Gārvi chief, under whose banner the rest were bound to serve in time of war. In former times the Gārvi chief was, in common with the other Dāng chiefs, tributary to the *deshmukh* of Malhar, a strong fort in the Bāglān *tāluka* of Nāsik District. But the oppression exercised by the *deshmukh* in collecting his tribute gave rise to such frequent disturbances that the British Government

was induced to deduct the amount from the sums paid to the Dāng chiefs for the leases of their forests, and hand it over direct to the representative of the *deshmukh*.

Name of Estate.	Area in square miles.	Villages.	Population, 1901.	Estimated gross revenue, in rupees.
Gārvi	305	53	4,682	6,500
Amāla	172	46	3,222	3,200
Derbhavti	172	44	3,199	4,300
Vāsurna	172	42	2,373	3,200
Pimpri	100	25	2,284	4,100
Kirli	12	9	386	700
Shivbāra	12	6	141	600
Chinchli-Gadad	16	25	1,291	800
Avachar	6	6	268	300
Pimplādevi	4	2	132	250
Vadhyaman	9	2	129	250
Palāsvihir	8	3	142	350
Bilbāri	2	3	217	200
Zāri Gārkhadi	9	3	168	250
Total	999	269	18,634	25,000

The administration of justice, civil and criminal, in the Dāngs is vested in the Collector of Surat as *ex-officio* Political Agent, capital sentences being referred for the confirmation of Government. The divisional forest officer, as Assistant Political Agent, and the *dīwān* exercise first and second-class magisterial powers respectively. Petty cases are settled by the Rājās and Naiks themselves, each in his own jurisdiction, the punishments inflicted being chiefly fines in money and cattle. None of the chiefs possesses a *sanad* authorizing adoption, and the succession in all cases follows the rule of primogeniture. The whole area of the Dāngs is leased to Government for an indefinite term, but the lease may be relinquished at any time on giving six months' notice. Since the control of the Dāngs was given to Surat, many improvements have been effected. They are now being gradually opened out and settled by Government. Cart-roads are being constructed, and serviceable buildings and wells for the use of the forest and other subordinate officials have been erected in all directions. The principal places are connected by roads more or less suitable for cart traffic. Ahwa, a plateau about 1,600 feet above the sea, near the centre of the Dāngs, has been selected as the head-quarters of the *dīwān*, Hospital Assistant, police, excise officials, and of a Range Forest officer and several forest subordinates. Mesketri and Waghai, two important outlets, are the head-quarters of the North and

South Dāng Ranges respectively. There are post offices at Ahwa and Waghai. A dispensary and a small school have been opened at Ahwa, where a liquor distillery has also been established to supply the eleven liquor shops situated in different parts of the Dāngs.

Bānsda Town.—Chief town of the State of the same name in the Surat Agency, Bombay, situated in 20° 47′ N. and 73° 28′ E. Population (1901), 3,760. The town contains a dispensary, and is administered as a municipality at the cost of the State.

Dharampur Town.—Chief town of the State of the same name in the Surat Agency, Bombay, situated in 20° 34′ N. and 73° 14′ E. Population (1901), 6,344, including 5,316 Hindus and 977 Muhammadans. It is administered as a municipality at the cost of the State.

Sachīn Village.—Chief place of the State of the same name in the Surat Agency, Bombay, situated in 21° 4′ N. and 72° 59′ E., 9 miles south of Surat city. Population (1901), 997. Good roads connect it with Surat, with Lachpur on the Mindhola, the former residence of the Nawābs, and with Sachīn station on the Bombay, Baroda, and Central India Railway. The village contains the palace of the Nawāb, a small fort, a courthouse, a jail, a dispensary, &c.

Surgāna.—A petty Kolī State situated in the north-west corner of Nāsik District, Bombay, with an estimated area of 360 square miles. Like the Dāngs, Surgāna State is full of spurs of hills and waving uplands, once covered with dense forest, now partly cleared and stripped of most of their valuable timber. The chief forest trees are teak, black-wood, *khair*, and *tivas*. Minor forest products include fruit, gums, honey, lac, and roots. Except in April and May the climate is unhealthy, and in the hot season water is scarce and bad. The annual rainfall averages 70 inches.

The ancestors of the Surgāna *deshmukh* appear to have been Kolīs, who lived in the fastnesses round Hātgarh. During Muhammadan rule a nominal allegiance was claimed from them, and they were entrusted with the duties of preventing the wild Bhīls and Kolīs of the Dāngs from passing above the Western Ghāts, of rendering military service when required, and of keeping open the roads that ran through their territory. Under Marāthā rule, on the *deshmukh* refusing to pay any revenue, his country, along with the Dāngs, was reckoned as rebel land. But as Surgāna lay on one of the high roads between the Deccan and Surat, great efforts were made to

conciliate the chief. The Surgāna *deshmukh* continued independent until 1818, when the British Government, in retaliation for an attack made on a British party, sent an expedition against the chief, who was seized and hanged, his cousin being recognized as the head of the State. This led to disputes about the succession, which were not settled till 1842. The chiefship descends in the line of one brother, while the descendants of another brother have an equal share in the revenues, independent of all control. The eldest son is not necessarily chosen to succeed. The chief manages the State in person and resides at Surgāna (population, 959), 52 miles from Nāsik city. The State contains 61 villages, of which 15 have been alienated. The population was 12,398 in 1891 and 11,532 in 1901, representing a density of 32 persons per square mile. The Hindus (11,222) are mostly Kolīs (4,000) and Kunbīs (6,000). Their language is a dialect of Marāthī.

The soil chiefly consists of a loose rich black loam, which, though generally of little depth, is very fertile. The richest tracts are at the bottom of the valleys. The staple of food is *nāgli*, an early crop raised on the slopes of the hills by hand labour; *kodra*, rice, and *sāva* are also grown. About 20,000 acres are under cultivation. There are no special forest Reserves. The roads passable for beasts of burden are from Hātgarh in Nāsik District to Bulsār in Surat; there is also a cart track from Surgāna to Bānsda. The only traffic is in timber. The *deshmukh* rules the State with the help of his *dīwān*, subject to the orders and instructions of the Collector of Nāsik as Political Agent. Civil disputes and petty offences are settled by the *deshmukh* with the *dīwān*. Criminal charges are tried without any regular procedure or fixed rules. Serious cases are referred to the Political Agent.

The revenue in 1903-4 exceeded Rs. 19,000, the average being Rs. 28,000, chiefly derived from excise (Rs. 8,000). The land revenue of the State (Rs. 4,000) is raised by a tax on ploughs, according to the system known as *autbandi*. Survey operations were commenced in 1895-6, but were suspended in the famine years and are still in abeyance. The forest revenue is Rs. 3,000. The police number 13. The *deshmukh* pays no tribute. Since 1881 the State has allotted about Rs. 7,500 to public works. The expenditure on education is limited to the maintenance of one school with 22 pupils in 1903-4. Surgāna contains no dispensary, but the *deshmukh* himself keeps a few medicines for free distribution.

Jawhār.—State situated within the geographical limits of

Thāna District, Bombay, between 19° 40′ and 20° 4′ N. and 73° 2′ and 73° 23′ E., with an area of 310 square miles. Jawhār State consists of two unequal patches of territory, the larger in the north-eastern part of Thāna District, and the smaller in the north-western. The Bombay, Baroda, and Central India Railway just touches the western boundary of the smaller patch.

Most of Jawhār is a plateau raised about 1,000 feet above the Konkan plain. Eastward the Western Ghāts can be crossed by pack-bullocks through the Chinchutāra and Gonde passes to the north, and through the Dhondmāre and Shir passes to the south, of the high hill of Vatvad. The westerly route, about 38 miles from Jawhār to Dāhānu Road on the Bombay, Baroda, and Central India Railway, crosses the Kasātwādi and Deng passes by a metalled road built by the Government in 1872–4. The road has recently been farther extended by the State eastwards to Kelghar. Towards the south and west the country is in some places level; but the rest of the territory is elevated, and consists of the rocky and forest-covered tract that everywhere lies at the western foot of the Ghāts. Though its many fertile valleys contain numerous streams, their waters are not used for irrigation. The chief streams are the Deharji, the Surya, the Pinjali, and the Vāgh. Except in the southern *mahāl* of Malvāda, the water-supply fails as the hot season advances. Between June and October the rainfall is heavy, the average for the year being 120 inches. From the close of the rainy season till the end of December the air retains a considerable degree of moisture. In January and February the dryness and heat increase, followed from March to June by a tolerably warm season. The temperature rises to 106° in May and falls to 66° in January. During the greater part of the year the climate is malarious and unhealthy.

Up to 1294, the period of the first Muhammadan invasion of the Deccan, Jawhār was held by a Vārli, not a Kolī, chief. The first Kolī chief, Paupera, otherwise known as Jayaba, obtained his footing in Jawhār by a device similar to that of Dido, when she asked for and received as much land as the hide of a bull would cover. The Kolī chief cut his hide into strips, and thus enclosed the territory of the State. Jayaba was succeeded by his son Nīm Shāh, on whom the king of Delhi conferred the title of Rājā. So important was this event in the history of Jawhār that June 5, 1343, the day on which the title was received, has been made the beginning of

a new era, which is still used in public documents. The Ahmadābād Sultāns, who held the sea-coast of Thāna, interfered but little with the inland portion of Jawhār; but with the Portuguese a continuous struggle was waged, which lasted until the decay of the latter, when the Jawhār chief, aided by alliances with the Mughal generals, managed to plunder the Portuguese possessions in the North Konkan and extend his territory from Bassein to Dāhānu. Subsequently the Marāthās, who attacked the State on several occasions, deprived the chief of part of his territory and forced him to pay tribute. The succession to the chiefship follows the rule of primogeniture; a *sanad* granting the right of adoption on failure of natural heirs was granted in 1890. Except the *nazarāna*, or succession fee in case of adoption, the Rājā pays no tribute to Government.

Since 1872 the population of the State has increased by 27 per cent. According to the Census of 1901, the population was 47,538, of whom 47,007 were Hindus and 471 Muhammadans, the density being 153 persons per square mile. The State contains 108 villages, the only important one being that from which the State takes its name, situated in 19° 56′ N. and 73° 16′ E., with 3,567 inhabitants. Jawhār village is healthy and fairly cool, standing 1,500 feet above sea-level. The only place of interest in the State is the ruined fort of Bhopatgarh, about 10 miles south-east of Jawhār village.

The soil, except in the level tracts, is stony and unsuited for the better class of crops. Of the total area, 69 square miles are under forest and 58 are uncultivable, 171 square miles are cultivable, and 159 were cropped in 1903–4. Besides timber, the country yields rice to a limited extent and the coarser grains abundantly. The State escaped the famine that affected the rest of the Presidency in 1899–1902, but it suffered rather severely from the depredations of locusts in 1903–4. The export trade consists of teak, rice, and *nāgli*. Good building stone is found.

Jawhār is under the political control of the Collector of Thāna. The chief decides Sessions cases and hears appeals, and has power to try his own subjects for capital offences. The land is held to belong to the State, but so long as the owner pays his rent he cannot be ousted. The land revenue formerly varied in different parts of the State, but the settlement, completed in 1887–8, has fixed rates varying from 2½ annas to Rs. 5½ per acre. The total revenue in 1903–4 was about 1·7 lakhs, of which Rs. 50,000 accrued from land,

Rs. 29,000 from excise, and Rs. 3,000 from forests. The expenditure amounted to over one lakh. The State pays no tribute, and the levy of transit dues was abolished in 1881. Control over opium has been ceded to the British, to whom also the excise arrangements are farmed. No military force is maintained. The police number 45. The State possesses two schools, with an average daily attendance of 132 pupils. The State dispensary, opened in 1878, treats annually 3,000 patients. About 1,500 persons are vaccinated annually in the State.

Janjīra State (or *Habsān*, 'the African's land').—State within the Political Agency of Kolāba, Bombay, in the Konkan, lying between 18° and 18° 31′ N. and 72° 53′ and 73° 17′ E. The State is bounded on the north by the Kundalika or Roha creek in Kolāba District; on the east by the Roha and Māngaon *tālukas* of the same District; on the south by the Bānkot creek in Ratnāgiri District; and on the west by the Arabian Sea. About the middle of the coast-line, 40 miles long, the Rājpuri Gulf divides Janjīra into two main portions, northern and southern. The area is 324 square miles, excluding JĀFARĀBĀD in Kāthiāwār, which is also subject to the chief. The name Janjīra is a corruption of the Arabic *jazīra*, 'an island.'

Physical aspects.

The surface of the State of Janjīra is covered with spurs and hill ranges, averaging about 1,000 feet in height, and generally running parallel to the arms of the sea that penetrate eastwards into the interior. The sides of the hills are thickly wooded, except where cleared for cultivation. Inland from the coast rise ranges of wooded hills. Near the mouths of the creeks belts of palm groves from 1 to 2 miles broad fringe the shore. Behind the palm groves lie salt marshes and mangrove bushes; behind these again, the rice lands of the valleys. The wealthiest and largest villages, inhabited by skilful gardeners, well-to-do fishermen, and palm-tappers, nestle in the palm-belt along the coast. Inland, the banks of the creeks are studded with hamlets, occupied by husbandmen who cultivate rice. On the hill-sides, in glens or on terraces, are the huts and scanty clearings of Kāthkaris and other hill-men. The slopes of the lower hills are generally rounded and passable by a pony. These slopes, except in the rains, are bare; but at most times, and particularly at high tide, the Rājpuri creek affords fine views of wooded hill and winding water. In former times travel was nearly impossible during the rains; but since the accession of the present Nāwab in

1883, roads have been constructed affording considerable facilities for travel even in the rainy season. On the coast the sand-bars at the mouth of every inlet but the Rājpuri creek prevent ingress. Farther inland, the low rice lands become covered with deposited mud, the main streams are flooded too deeply to be forded, and overgrown forest tracts render difficult the passage from one hill range to another. None of the streams is more than 5 or 6 miles in length. The larger watercourses flow westward. During the rains they are torrents, but dwindle to mere rills at other seasons. The chief creeks and backwaters are, beginning from the north: the Māndla-Borlai, Nāndgaon, Murud, Rājpuri, Panchaitan or Dive-Borlai, and Srīvardhan. Most of the creek entrances are rocky and dangerous. During the navigable season, September to June, they can be entered only by boats of under 1½ tons burden. Once over the bar, the creeks are mostly of uniform depth throughout their course. The mouth of the Rājpuri creek is 45 miles south of Bombay. The creek ends at the old town of Mhasla, 14 miles south-east of Janjīra town. At springs the tide rises 12 feet in the creek. There is no bar. The bottom is muddy. The least depth at low tide is 3½ fathoms at the entrance of the creek, and 4½ fathoms inside the entrance in the mid-channel. Steamers can enter, even during the rains, and lie in still water to the south of Janjīra island.

Geology, flora, and fauna.

The rock is almost all trap, with, on the higher hill slopes, laterite or ironstone in large boulders. The hills are well wooded, teak being plentiful in the north. Tigers, leopards, hog, and wild cats are found in some parts. Venomous snakes are numerous.

Climate and rainfall.

The climate is moist and relaxing, but not unhealthy. The sea-breeze cools the coast and hill-tops. Along the coast, fever and dysentery prevail from October to January. The heat on the coast ranges from 63° to 85° in January, from 70° to 94° in May, from 79° to 85° in July, and from 69° to 84° in November. Inland, where the sea-breeze does not penetrate, the thermometer ranges 7° or 8° higher. The annual rainfall averages 107 inches.

History.

The origin of the ruling family is thus related. About the year 1489 an Abyssinian in the service of one of the Nizām Shāhi kings of Ahmadnagar, disguised as a merchant, obtained permission from Rām Pātel, the Kolī captain, to land 300 boxes. Each of these boxes contained a soldier, and by this means the Abyssinians possessed themselves of Janjīra island

and the fort of Danda Rājpuri. The island afterwards formed part of the dominions of the king of Bijāpur. In the time of Sivajī the government of the Southern Konkan was held by the admiral of the Bijāpur fleet, who was always an Abyssinian. In consequence of the inability of his master to succour him when attacked by Sivajī, the Sīdī admiral offered his services, in 1670, to the Mughal emperor Aurangzeb. The most noticeable point in the history of Janjīra is its successful resistance, alone of all the States of Western India, to the determined attacks of the Marāthās, who made its capture a point of honour. After repeated attacks by Sivajī, its conquest was again attempted in 1682 by his son Sambhājī, who besieged the island, which he attempted to connect with the mainland by means of a mole. The project failed, and other attempted modes of attack were defeated with heavy loss. In 1733 the combined efforts of the Peshwā and Angria made little impression on Janjīra. The British, on succeeding the Marāthās as masters of the Konkan, refrained from interfering in the internal administration of the State.

The chief is a Sunnī Muhammadan, by race a Sīdī or Abyssinian, with the title of Nawāb. He has a *sanad* guaranteeing succession according to Muhammadan law, and pays no tribute. As regards succession, the family does not necessarily follow the rule of primogeniture. Till 1868 the State enjoyed singular independence, there being no Political Agent, and no interference whatever in its internal affairs. About that year the maladministration of the chief, especially in matters of police and criminal justice, became flagrant; those branches of administration were in consequence taken out of his hands and vested in a Political Agent. The treaty which regulates the dealings of the British Government with the State is that of 1870. The Nawāb of Janjīra is entitled to a salute of 11 guns.

Population. The population (exclusive of Jāfarābād) at the last four enumerations was: (1872) 71,996, (1881) 76,361, (1891) 81,780, and (1901) 85,414. There are two towns, Murud (population, 3,553) and SRĪVARDHAN (5,961); and 284[1] villages. The density is 264 persons per square mile. About 82 per cent. are Hindus and 17 per cent. Musalmāns. The castes of numerical importance are Agris (9,617), Kolīs (7,326), Kunbīs (15,670), and Mahārs (7,242). Brāhmans (1,524) and Prabhus (1,771) constitute the higher castes. The

[1] The Census of 1901 showed 234 villages. The present figure is based upon more recent information.

Musalmāns are chiefly Shaikhs (13,552), only 240 having returned themselves as Sīdīs in 1901. An interesting though numerically unimportant community are the Bani-Israil (566), who are a race of Jewish descent, worship one God, and have no images in their houses. They practise many Jewish rites. The dress and manner of living of the Bani-Israil, who are mostly oil-pressers by trade, are partly Muhammadan and partly Hindu. They speak Marāthī. Though fond of drink, they are steady, enterprising, and prosperous. The Sīdīs are the representatives of Habshi or Abyssinian slaves and soldiers of fortune, and are found only in the island of Janjīra. Many of them are related to the Nawāb and inherit State grants and allowances. The term Sīdī is considered to be a corruption of Saiyid. The crews of the Bombay harbour boats, the steamships of the Peninsular and Oriental Company, and the smaller coasting steamers are to a great extent recruited from Janjīra.

Agriculture, &c.

Except the plots of rich alluvial rice land in the valleys and some sandy tracts near the coast, the usual red stony soil of the Konkan prevails throughout Janjīra. Of the whole area, 42 square miles or 13 per cent. are arable, of which 41 square miles were cultivated in 1903-4. The principal crops are rice ($38\frac{1}{2}$ square miles), betel-nuts, and coco-nuts. Srīvardhan betel-nuts are known throughout the Bombay Presidency. In the strip of light sand bordering the coast coco-nut palms grow in great perfection. For irrigation purposes, water sufficiently fresh is found everywhere by digging a few feet into the easily worked earth. It is drawn from wells by means of the Persian wheel, and from streams by a balance lift called *ukti*. In 1878 the British system of forest preservation was adopted. The forests are now strictly protected, and in 1903-4 yielded Rs. 40,700. Quarries of trap and laterite are occasionally worked. Small pearls are found in oysters fished up from the Rājpuri creek. The oyster is believed to be the *Placuna placenta*. Judging from the quantities of shells thrown up along the banks of the Rājpuri creek, the beds must be considerable.

Manufactures and trade.

Next to agriculture, which supports 70 per cent. of the total population, sea-fishing is the occupation of most of the people. The manufactures include the weaving of *sāris*, coarse cloth, turbans, and the making of coir rope, metal-work, furniture, stone-ware, and native shoes of an inferior kind. The chief articles of import are grain (Rs. 60,000), cotton and woollen stuffs (Rs. 70,000), sugar and molasses (Rs. 56,000), salt

(Rs. 10,000), *ghī* and oil (Rs. 77,000); the total value of imports being 4·3 lakhs. The export trade amounts to more than 3 lakhs, the chief articles being firewood (Rs. 83,000), supplied to Bombay, and betel-nuts and coco-nuts (Rs. 63,000).

Communications. External traffic is carried on almost entirely by water. In March, 1874, regular steam communication was established between Bombay and Dāsgaon on the Sāvitri river, touching at Janjīra and Srīvardhan. There are twelve ferries in the State. A ferry steamer plies between Bombay and Dharamtar. The chief made roads are from Murud to Borlai, 14 miles in length, and from Dighi to Srīvardhan, 19 miles. A State post formerly worked between Alībāg and Bānkot, but was abolished in 1880 when the British post office was extended.

Famine. Since 1872, when the crops partially failed, the State has suffered from bad seasons in 1875, 1878, 1879, and 1881. In 1899-1900 the crops in several villages failed on account of the scanty rainfall, and relief works were undertaken.

Administration. The administration of the State is in the hands of the *kārbhāri*, under the orders of the Nawāb and subject to the supervision of the Political Agent. There are ten criminal courts (excluding three in the Jāfarābād dependency) with subordinate magisterial powers, and three civil courts in the State, two of which exercise appellate powers. The three civil courts are those of the Munsif, the Sar Nyāyādhish, and the Sadr Court. The Munsif disposes of suits up to the value of Rs. 5,000. The Sar Nyāyādhish hears suits of greater value, exercises Small Cause Court powers up to a limit of Rs. 50, and also has appellate powers. The Sadr Court, which is presided over by the Nawāb himself, exercises the powers of a High Court. The *kārbhāri* has the powers of a Sessions Judge and District Magistrate.

The revenue of the State exceeds 5½ lakhs (inclusive of about Rs. 65,000 from Jāfarābād in Kāthiāwār), and is chiefly derived from land (2½ lakhs), forests (Rs. 41,000), excise (Rs. 70,000), and salt and customs (Rs. 50,000). The expenditure is 5 lakhs (inclusive of Rs. 41,000 in Jāfarābād), of which one lakh is brought to account as Darbār expenses and Rs. 50,000 as *inām* and charities or religious grants. Salt is purchased from the British Government, the annual sale of which amounts to 9,000 maunds. Opium is also purchased from the British Government. The excise system is the same as in the Alībāg *tāluka* of Kolāba District. Of the total excise revenue, the tree taxes yield Rs. 34,000 and the toddy spirit fee Rs. 20,000. Till it was closed in 1834, the Nawāb's mint

issued silver and copper coins. British coinage has now taken the place of the old currency. The total number of villages (including towns) is 286, of which 263 are unalienated and 23 alienated. The chief district revenue officer is in charge of the three fiscal divisions or *mahāls* of Srīvardhan, Murud, and Mhasla. The survey settlement was introduced in 1898–9. The new rates have enhanced the assessment from 1·81 to 1·86 lakhs. The present rates per acre for rice land vary from Rs. 6–7 to Rs. 9–9; for garden land from Rs. 6–10 to Rs. 15–11; and for *varkas* land from 3 to 4 annas.

There are two municipalities, besides that at Jāfarābād, one at Murud and the other at SRĪVARDHAN, with an income in 1903–4 of Rs. 3,600 and Rs. 3,200 respectively. Local funds yield Rs. 15,000, consisting of a cess of one anna on each rupee of land revenue and of part of the income from cattle pounds. Exclusive of 13 irregulars in Jāfarābād, the military force consists of 30 infantry, 14 gunners, and 188 irregulars, in all 232. The total strength of the permanent police is 137, exclusive of 28 in Jāfarābād. The daily average number of prisoners in the State jail in 1903–4 was 11; there are also 3 lock-ups. Janjīra proper has (1903–4) 69 schools, including one English school with 130 pupils. The number of pupils attending these schools was 2,862, of whom 428 were girls. A hospital and 4 dispensaries treat about 30,000 persons annually. In addition, Jāfarābād contains 2 dispensaries, which treated 6,000 persons in 1903–4. Nearly 3,000 persons, or 36 per 1,000 of the population, are vaccinated annually.

Devgarh (or Hareshwar).—Village in the State of Janjīra, Bombay, about 3 miles south of Srīvardhan. Population (1901), 1,130. In the time of James Forbes (1771) the village was noted for the sacredness of its temple, the beauty of its women, and for having been the residence of the ancestors of the Peshwās. There is a temple sacred to Kāl Bhairav, who is said to cure all sickness caused by evil spirits. Two fairs are held in the year, one on the Mahāsivrātri (February) for one day, and the other from Kārtik-suddha (November). They are attended by about 3,500 persons, and on each occasion flowers, fruits, sweetmeats, toys, and bangles are brought for sale.

Janjīra Village.—Capital of the State of Janjīra, Bombay, situated in 18° 18′ N. and 73° E., 44 miles south of Bombay Island. Population (1901), 1,620. The fort of Janjīra, on an island at the entrance of the Rājpuri creek, lies half a mile from the mainland on the east, and a mile from the mainland

on the west. Its walls rise abruptly from the water to a height of 50 feet, with battlements and loopholes. In the bastions and on the walls are ten guns. In the fort a Muhammadan fair is held n November, attended by about 3,000 visitors. On Nānwell headland, about 2 miles west of the fort, a lighthouse shows a dioptric light of order 4, about 150 feet above sea-level. It serves to light the dangerous sunken reef known as the Chor Kāssa, situated about three-quarters of a mile from the headland.

Srīvardhan.—Town in the State of Janjīra, Bombay, situated in 18° 4′ N. and 73° 4′ E., about 12 miles south of Janjīra village. It appears in the writings of early European travellers as Ziffardan. Population (1901), 5,961. In the sixteenth and seventeenth centuries, under Ahmadnagar and afterwards under Bijāpur, Srīvardhan was a port of consequence. It has still a considerable trade, which consists chiefly of betel-nuts of a superior kind, highly valued at Bombay. An annual fair is attended by about 3,000 persons. The income of the municipality is about Rs. 3,000.

Sāvantvādi State (or Sāwantwāri).—State in Bombay, lying between 15° 38′ and 16° 14′ N. and 73° 37′ and 74° 23′ E., with an area of 925 square miles. It is bounded on the north and west by the British District of Ratnāgiri; on the east by the Western Ghāts; and on the south by the Portuguese territory of Goa. The general aspect of the country is strikingly picturesque. From the sea-coast to the foot of the Ghāts, a distance varying from 20 to 25 miles, are densely wooded hills, and, in the valleys, gardens and groves of coco-nut and areca-nut palms. Spurs and isolated peaks rising from 300 to 3,000 feet above the plain form strong natural fastnesses, some of which, like Manohar and Mansantosh, are said to have been fortified many centuries ago. The chief streams are the Kārli on the north and the Terekhol on the south, which open out into creeks. Both are navigable for small native craft—the Terekhol for about 15 and the Kārli for about 14 miles.

Physical aspects.

Geology.

The Sāvantvādi State is composed for the most part of metamorphic rocks, but at the northern part a considerable quantity of trāp is found, and on the west a narrow band of laterite. These with the Ghāts on the east form physical features that serve as a sort of natural boundary to the country. The great metamorphic spurs which run out west from under the mural termination of the Deccan trap at the Ghāts extend to varying distances, and either end abruptly or break into clusters of lower hills. The intervening country is low and

covered with deeper soil than is usually the case in the Konkan; this renders Sāvantvādi more open to cultivation than the barren laterite plateau to the west and north. There are a few insignificant outliers of the Kalādgi (Cuddapah) series.

Fauna and flora.

Tigers, leopards, bears, bison, deer, wild hog, wild dogs, jackals, foxes, and hyenas are found. Snakes are common. In the Ghāt tracts the State contains good teak; and blackwood, *ain*, *kher*, and *jāmba* are common. Near the sea, jackwood, mango, *bhirand* (*Garcinia indica*), coco-nut palms, and cashew-nut are plentiful.

Climate and rainfall.

The climate is humid and relaxing, with a heavy rainfall, the annual fall averaging 150 inches. April is the hottest month in the year; in May a strong sea-breeze, the precursor of the south-west monsoon, tempers the heat. The temperature rises to 100° in May and falls to 62° in January.

History.

Early inscriptions show that from the sixth to the eighth centuries the Chālukyas ruled over Sāvantvādi. In the tenth century the rulers were Yādavas. In the thirteenth century the Chālukyas were again in power. At the close of the fourteenth century Sāvantvādi was under an officer of the Vijayanagar empire. About the middle of the fifteenth century it formed part of a powerful Brāhman dynasty. On the establishment of the Bijāpur power at the close of the fifteenth century, Sāvantvādi became part of the territory of those kings. In about 1554 one Māng Sāvant of the Bhonsla family revolted from Bijāpur, and making Hodowra, a small village 9 miles from Vādi, his head-quarters, defeated the troops sent against him, and maintained his independence during his lifetime. After his death his successors again became feudatories of the Bijāpur kings.

The chief who finally freed his country from the Muhammadan yoke was Khem Sāvant Bhonsla, who ruled from 1627 to 1640. He was succeeded by his son Som Sāvant, who, after ruling for eighteen months, was succeeded by his brother, Lakham Sāvant. When the power of Sivajī seemed in the ascendant (1650), Lakham Sāvant tendered him allegiance, and was confirmed as Sar Desai of the whole Southern Konkan. Dying in 1665, Lakham was succeeded by his brother, Phond Sāvant, who, after ruling for ten years, was succeeded by his son, Khem Sāvant II. This chief, by aiding the Mughals in their struggles with Sivajī, and making frequent raids across the Goa frontier, added considerably to his territory; and subsequently, having supported Sivajī's grandson Sāhū in his contest with the Rājā of Kolhāpur, he was confirmed in his possessions. It was during

the time of Khem's successor (1709–37) that the Sāvantvādi State first entered into relations with the British Government. A treaty was concluded between them against the piratical chieftain, Kanhojī Angria of Kolāba.

The chief, who ruled from 1755 to 1803 under the name of Khem Sāvant the Great, married in 1763 the daughter of Jayājī Sindhia; and consequently the title of Rājā Bahādur was conferred upon him by the emperor of Delhi. The Rājā of Kolhāpur, envious of this honour, made a descent on Vādi, and captured several hill fortresses, which were, however, through Sindhia's influence, subsequently restored. The rule of Khem Sāvant, who, not content with wars on land, also took to piracy, was one long contest against Kolhāpur, the Peshwā, the Portuguese, and the British. Khem Sāvant died childless in 1803; and the contest for the succession was not decided till 1805, when Khem Sāvant's widow Lakshmī Bai adopted a child, Rāmchandra Sāvant, *alias* Bhau Sāhib. This child lived for three years, and was then strangled in bed. Phond Sāvant, a minor, was chosen to fill his place. During these years of disorder the ports swarmed with pirates. So severely did British commerce suffer, that in 1812 Phond Sāvant was forced to enter into a treaty ceding the port of Vengurla to the British, and engaging to give up all his vessels of war. Soon after the conclusion of this treaty, Phond Sāvant III died, and was succeeded by his son Khem Sāvant IV, a child of eight. This chief, when he came of age, proved unable to manage his State, and, after several revolutions and much disturbance, at last in 1838 agreed to make over the administration to the British Government. After this, rebellion twice broke out (in 1839 and 1844), but the disturbances were soon suppressed, and the country has since remained quiet. The State was eventually restored in 1861, on the chief undertaking to defray the cost ($5\frac{1}{2}$ lakhs) of the last rebellion, to pay a succession fee of one year's revenue, to protect his subjects, and to meet the expense of a British Resident and his establishment.

The chief, a Marāthā by caste and styled Sar Desai, is entitled to a salute of 9 guns. His family holds a *sanad* authorizing adoption, and in point of succession follows the rule of primogeniture.

Population. The population numbered 190,814 in 1872; 174,433 in 1881; 192,948 in 1891; and 217,732 in 1901. The State contains one town, VĀDI, and 226 villages; and the density is 235 persons per square mile. Hindus form 94 per cent. of the total, and there are 5,634 Musalmāns and 5,400 Christians.

Among Hindus the chief castes are Brāhmans (14,000), who are of the Karhāde, Kudāldeskar, and Shenvi subcastes; Bhandāris, or toddy drawers (25,000); Marāthās (117,000), who are largely cultivators; Vānīs, or traders (12,000); and Mahārs, or low-caste watchmen and labourers (12,000). The Musalmāns describe themselves as Shaikhs (4,000). Native Christians are almost entirely Roman Catholics, the only mission in the State being the Portuguese Catholic Mission. They have increased from 2,000 to 5,400 in the last fifty years. The common language is the Konkanī dialect of Marāthī. The sturdy and docile Marāthās of the State are favourite recruits for the Indian army. They also supply much of the immigrant labour in the adjacent British Districts during the cultivating season. Of the total population, 74 per cent. are supported by agriculture.

Agriculture.

The soil is chiefly light, and mixed with stone and gravel, and not suitable for the better class of crops. Of the total area of arable land (594 square miles), 221 square miles were cultivated in 1903-4: namely, rice 97 square miles, garden land 10 square miles, and *varkas* or hill crops 114 square miles. The staple crop is rice; but the quantity grown is not sufficient for the wants of the people, and a good deal is imported. Excepting rice, none but the coarsest grains and pulses are raised. A species of oilseed, *til*, *san*-hemp, and black and red pepper are also grown, but neither cotton nor tobacco. Both soil and climate are against the cultivation of wheat and other superior grains. For these, the people have to look to the country east of the Ghāts, whence during the fair season, from October to June, large supplies are received.

Forests and minerals.

Sāvantvādi, with an area of 54 square miles of forest lands, is rich in valuable teak. Iron ore of fair quality is found in the neighbourhood of the Ram *ghāt* and also near Danoli in the Western Ghāts. It is worked on a very small scale, which does not suffice even for the local demand. The Aker stone, a slate-coloured talc-schist, extremely hard, compact, and heavy, is unrivalled for building purposes. Laterite is quarried in many places. Talc of inferior quality is found at Kudāwal and in other parts of the State.

Manufactures and trade.

Salt of an inferior kind was once manufactured, but the salt works have been abolished. The principal industries of the State consist of gold and silver embroidery work on both leather and cloth; fans, baskets, and boxes of *khas-khas* grass, ornamented with gold thread and beetles' wings; lacquered

toys, and playing-cards; and drawing-room ornaments carved from the horn of the buffalo and bison. A pottery establishment for the manufacture of tiles is now at work in the State, and in 1903–4 a factory was established in the jail for extracting plantain and aloe fibre. Before the construction of the Southern Mahratta Railway a considerable transit trade existed between Vengurla and Belgaum. The trade is now purely local, the imports being valued at $5\frac{1}{2}$ lakhs and the exports at Rs. 2,500.

Communications. There are no railways; but an excellent trunk road from the seaport of Vengurla passes through the State, leading by an easy gradient over the Western Ghāts to Belgaum. The other chief lines of communication with the Deccan are the Rām *ghāt*, the Talkat *ghāt*, and the Phonda *ghāt*. In 1904 a branch road to Malewad was constructed to facilitate the sea-borne trade via Araonda.

Famine. In 1791 the rain failed shortly after the country had been plundered by the Rājā of Kolhāpur, and scarcity ensued. In 1821 excessive rain destroyed the crops. The State is liable to local floods caused by the rapid rising and overflowing of its mountain streams. In 1883–4 some damage to the crops was done by locusts, and again in 1902–3 and 1903–4.

Administration. For administrative purposes the area of the State is divided into the three subdivisions of Vādi, Bānda, and Kudāl. Under the supervision of the Political Agent, who is aided by an Assistant Political Agent, the revenue and magisterial charge of each of these fiscal subdivisions is placed in the hands of an officer styled *kamāvisdār*. Appeals in revenue matters lie from the Political Agent to the Commissioner, Southern Division. Land is divided into four classes: namely, State, alienated, rented, and *ryotwāri*. State lands are either crown lands or private lands, the latter being the personal property of the chief. Both classes are managed by the revenue officials, and are let to the highest bidder for a fixed term of years. Alienated lands are classed as *inām*, held free either in perpetuity or during the lifetime of the holder; *dastibad*, which are rare and are liable only to the payment of certain cesses; and *devsu*, or religious lands, the produce of which is devoted to temples. Rented or *khoti* lands are tilled or sublet to others by the *khot*, who pays a certain fixed sum to the State, and in turn receives a certain share of the produce from his sub-tenants. *Ryotwāri* or peasant-held lands pay a fixed assessment, as in British territory. The State has been surveyed and a regular settlement introduced since 1877. By its completion in 1895–6, the

land revenue was increased from 1·8 to 2·7 lakhs. The rates per acre vary from 1 anna to 6 annas for 'dry' land, from Rs. 5 to Rs. 14 for garden land, and from Rs. 4 to Rs. 7 for rice land.

There are 5 civil courts exercising original jurisdiction, of which 3 are permanent and 2 are temporary. The *desai* of Parma presides over an honorary court of Small Causes; the fifth court is that of the Registrar of the Small Cause Court. The Chief Judge has appellate jurisdiction, and the Political Agent exercises the powers of a High Court. There are nine criminal courts, the Political Agent having the powers of a Sessions Judge.

The revenue of the State in 1903–4 was about 4·3 lakhs, chiefly derived from land (about 2·7 lakhs), *ābkāri* and *sayer* (nearly Rs. 60,000), forests (Rs. 35,000), and stamps (over Rs. 33,000). The expenditure was nearly 4·8 lakhs, of which about 1⅓ lakhs is spent as *darbār* and *pāga* (stud and cattle-breeding) grants, and fixed assignments amounting to Rs. 50,000. The State spends about Rs. 50,000 annually on public works, and contributed Rs. 28,000 in 1903–4 towards the salaries of the Political Agent and his establishment. Up to 1839 the *pīrkhāni* rupee, first struck by the Bijāpur minister, was the standard coin. Since then it has been replaced by the British rupee.

The Sāvantvādi State maintains a local corps, consisting in 1904 of 327 men of all ranks under a European officer, which is to be reduced to 250; and an unarmed police force of 137, of whom 126 belonged to the permanent force and the rest were detailed from the local corps. The State has one jail, with a daily average of 43 prisoners in 1903–4. In that year the State contained 155 schools with 6,389 pupils. Of these, one is an English school with 261 pupils. Of the total population, 6·6 per cent. (12·8 males and 0·8 females) were returned as literate in 1901. One hospital and 3 dispensaries are maintained, in which 21,000 patients were treated in 1903–4. There is a lunatic asylum with 14 inmates, and a leper asylum with 77 inmates. In the same year about 6,300 persons were vaccinated.

Amboli.—Sanitarium in the State of Sāvantvādi, Bombay, situated in 15° 58′ N. and 74° 4′ E., and 2,300 feet above sea-level, on the edge of the Ghāts, about 19 miles north-east of Vādi and commanding fine views. The climate is pleasant, and the heat never oppressive. Two roads, one leading to the Rām *ghāt* and the other to Mahādeogarh, have been made. The village contains accommodation for travellers, and both the

chief and the Political Agent have residences here. Population (1901), 1,371.

Manohar (*Manohargarh*).—Fort in the State of Sāvantvādi, Bombay, situated in 16° N. and 74° 1′ E., 14 miles north-east of Vādi, and on the south of the Rāngna pass. Manohar is a solid mass of rock about 2,500 feet high, said to have been fortified since the time of the Pāndavas. In the disturbances of 1844 the garrison of Manohar espoused the cause of the Kolhāpur insurgents. In the beginning of 1845 the fort was taken by General Delamotte.

Vādi (or Sāvantvādi).—Capital of the State of Sāvantvādi, Bombay, situated in 15° 54′ N. and 73° 52′ E., about 11 miles west of the foot of the Western Ghāts and 17 miles east of Vengurla. The town is also sometimes known by the name of Sundarvādi, that is, the 'beautiful garden.' Population (1901), 10,213. Founded by Phond Sāvant in 1670, the town, almost buried in palm groves, stretches round the border of a lake, over rocky uneven ground, seamed by ravines and watercourses. Well-wooded hills rise on all sides, the highest (Vādi peak on the west) being 1,200 feet above the sea. Except on Tuesday, the market day, when numbers come in from the neighbouring villages, Vādi is a place of little trade. The lake, a beautiful sheet of water hemmed in by well-wooded hills and girt with a belt of palm, jack, and mango trees, is known as the Moti Talao ('pearl lake'). Covering about 31 acres, with a mean depth of 6 feet, it was improved in 1874, at a cost of about Rs. 20,000, by replacing the old retaining-dam by a cut-stone wall 204 yards long, secured by hydraulic cement, with iron gates at each end. On the east shore of the lake, separated from it by a roadway and sloping bank, stands a ruined fort, surrounded on the north-east and south by a ditch, which is dry in the fair season. The fort is irregular in shape, 350 yards by 150, and consists of roofed loopholed towers and bastioned curtains. The town contains a library and a clock-tower. It was administered as a municipality until 1904, when the funds and administration of the town were placed in charge of the Assistant Political Agent. The annual income is about Rs. 10,000. Water-works were constructed in 1895 at a cost of about 1¼ lakhs.

Savanūr State.—Native State within the limits of Dhārwār District, Bombay, lying between 14° 57′ and 15° 2′ N. and 75° 22′ and 75° 25′ E., with an estimated area of 70 square miles. The State is for the most part flat and treeless. In climate and fauna it does not differ from the adjacent portions

of Dhārwār District. The annual rainfall averages 27 inches. Plague broke out in 1898, and has since caused the death of over 4,000 persons, of whom one-fourth fell victims in the year 1902–3. The town of Savanūr alone lost 1,600.

The reigning family are Musalmāns of Pathān origin. The founder of the family, Abdul Kauf Khān, obtained in 1680 from the emperor Aurangzeb the grant of a *jāgīr* comprising Bankāpur, Torgal, and Azamnagar or Belgaum, with a command of 7,000 horse. In 1730 the family, as deputies of the Nizām, received additional territory, which the Peshwā seized in 1747. In 1786 Tipū Sultān, with whom the Nawāb was connected by marriage, stripped him of much territory; but the Nawāb, allying himself with the Marāthās, regained some part of it, and obtained from the Peshwā a pension of Rs. 10,000 a month. At the close of the last Marāthā War the Nawāb, whose conduct had been exceptionally loyal, was confirmed in his original possessions by the British Government, and received during his life an additional yearly grant of Rs. 6,000. The State pays no tribute. The family holds a *sanad* authorizing adoption, and the succession follows the rule of primogeniture.

The population in 1901 was 18,446, compared with 16,976 in 1891, residing in one town, SAVANŪR, and 22 villages. Hindus number 13,000, Musalmāns 5,000. Of the Hindus, nearly one-half (6,000) are Lingāyats. The Musalmāns describe themselves as Shaikhs (3,000) and Pathāns (1,000), with a few Arabs and Saiyids. About two-thirds of the population are supported by agriculture.

The soil of the northern, eastern, and southern villages is both red and black, and that of the western villages is red. The principal crops are cotton, *jowār*, *kulith*, *tur*, *pān*, wheat, gram, plantains, and sugar-cane. Of the total area of 70 square miles, about 2 square miles are under forest, and 6 square miles are uncultivable. The area of cultivable land is 62 square miles, of which 51 square miles were cropped in 1903–4, about 3 square miles being irrigated. The betel-leaf grown in the Savanūr gardens is celebrated for its superior quality, and has been exported in greater quantity since the opening of the Southern Mahratta Railway. Cotton cloths, such as *sārīs*, *dhotīs*, &c., are manufactured to a small extent, and there is some trade in grain and raw cotton. The State escaped the severity of the famine of 1899–1900, only two villages being affected.

The Collector of Dhārwār is Political Agent for the State,

his Senior Assistant being Assistant Political Agent. There are two criminal courts and one civil court, and the Political Agent has the powers of a District Judge. The State laws are modelled on those of British territory.

The revenue is about one lakh, chiefly derived from land. The State levies no customs or transit duties. A Local fund cess of one anna is levied from all landholders. The survey settlement introduced in 1870–1 was revised in 1895, and the revised rates were levied in 1896–7. The original revenue demand of Rs. 75,320 was increased to Rs. 90,463. The actual demand in 1903–4 was Rs. 61,991, including a quit-rent of Rs. 6,803, but excluding the assessment on *inām*, waste, and forest lands. The rates per acre vary from 4 annas to Rs. 5–5 for 'dry' land, from R. 1 to Rs. 12 for rice land, and from Rs. 3 to Rs. 24 for garden land. The police force consists of 48 men. The State contains 11 schools with 548 pupils. The dispensary at Savanūr treated 12,000 persons in 1903–4, and 502 persons were vaccinated in the same year.

Savanūr Town.—Capital of the State of Savanūr, Bombay, situated in 14° 58′ N. and 75° 23′ E., 40 miles south-east of Dhārwār. Population (1901), 9,796. The town covers an area of three-quarters of a mile and is enclosed by a ditch, with eight gates, now falling into ruins. Between 1868 and 1876 the town was greatly improved, the roads widened and metalled, and many old wells and ponds repaired. The municipal income is about Rs. 3,700. There are five schools with 403 pupils, including 116 girls, and a class for drawing and carpentry. The town contains a dispensary. The chief objects of interest are the Nawāb's palace, numerous mosques, a Vaishnava religious establishment, and the *math* of Sri Satya Bodhaswāmi.

Sātāra Jāgīrs.—A group of States in the Bombay Presidency under the political superintendence of the Collectors of Poona, Sātāra, Sholāpur, and Bijāpur, comprising BHOR, Aundh, Phaltan, AKALKOT, Jath, and Daphlāpur, with a total area of 3,247 square miles. Of these, Bhor lies in the north-west of Sātāra District, Phaltan in the north, Aundh in the east, Jath in the extreme south-east, Daphlāpur also in the south-east, and Akalkot in the south-east of Sholāpur. The Sātāra *jāgīrs* were feudatory to the Rājā of Sātāra, and became tributaries of the British Government on the lapse of that State in 1849. The *jāgīrdārs* retain all their former rights and privileges, with the exception of the power of life and death and of adjudication upon serious criminal cases. Their administration

is now conducted on the principles of British law. Criminal and civil justice is administered by the chiefs themselves, with the aid of subordinate courts. In criminal cases, heinous offences requiring capital punishment or transportation for life are tried by the Political Agents, assisted by two assessors, the preliminary proceedings being conducted by the *jāgīrdārs*. Such cases are committed by the ordinary magisterial courts of the States, whether the court concerned be presided over by the chief himself or by an officer with committal powers. In the latter case the proceedings are forwarded through the chief. No appeal lies to the Political Agents against the decisions of the chief in criminal matters.

DETAILS OF SĀTĀRA JĀGĪRS

Jāgīrs.	Title of chief.	Area in square miles.*	Number of towns and villages.†	Population.	Gross revenue in 1903-4.	Charge in which included.
					Rs.	
Aundh	Pant Pratinidhi	447	72	63,921	2,30,700	Sātāra District.
Phaltan	Nimbālkar	397	72	45,739	2,00,400	
Bhor	Pant Sachiv	925	502	137,268	3,68,800	Poona.
Akalkot	Rāj Bhonsla	498	108	82,047	4,57,400	Sholāpur.
Jath	Deshmukh	884	113	61,868	3,27,300	Bijāpur.
Daphlāpur		96	6	6,797	22,500	
	Total	3,247	873	397,640	16,07,100	

* The figures for area in this column differ from those in the *Census Report* for 1901, being based upon more recent information.

† At the Census of 1901 there were 71, 484, and 103 villages respectively in Aundh, Bhor, and Akalkot, the rest being uninhabited.

The charges are now permanent, though the Bombay Government had occasion to effect transfers in the past. Originally all the *jāgīrs*, with the exception of Akalkot, were placed under the political control of the Collector of Sātāra. In 1874 Jath and its dependency Daphlāpur, which had been mismanaged, were placed in charge of the Political Agent, Kolhāpur and Southern Marāthā Country, but were later transferred to the control of the Collector of Bijāpur. Bhor was transferred from the Sātāra to the Poona Agency in 1887. The present chief of Bhor has a personal salute of nine guns.

Sātāra Agency.—Political Charge in Sātāra District, Bombay, comprising two *jāgīrs* under the political superintendence of the Collector of Sātāra: Aundh, lying between 16° 24′ and 17° 47′ N. and 74° 6′ and 75° 42′ E., with an area of 447 square miles; and Phaltan, lying between 17° 55′ and 18° 6′ N. and 74° 12′ and 74° 44′ E., with an area of 397 square miles. Phaltan lies to the north of the Mahādeo range,

which drains into the Nīra, between Poona and Sātāra Districts; Aundh is scattered within the limits of Sātāra District, the considerable block of the Atpādi *tāluka* lying to the north-east of Khānāpur in that District. The surface of both Phaltan and Aundh is chiefly flat; lines of stony hills divide the former from Sātāra District. The Nīra river runs in the north of Phaltan, and the Mān flows north and south in the Atpādi *tāluka* of Aundh. Both States lie within the area of Deccan trap. The climate is hot, and the rainfall scanty and uncertain. The annual rainfall averages 20 inches at Phaltan and 22 inches at Aundh. The temperature at Phaltan rises to 104° in May and falls to 50° in January.

Formerly the group of Native States comprising Akalkot, Aundh, Bhor, Daphlāpur, Jath, and Phaltan was recognized as the Sātāra *jāgīrs*, once feudatory to the Rājā of Sātāra. In 1849 five of them were placed under the Collector of Sātāra, and Akalkot under the Collector of Sholāpur. Subsequently, the *jāgīr* of Bhor was transferred to the Collector of Poona, and Jath and Daphlāpur to the Southern Marāthā Country. The last two are now under the Collector of Bijāpur. The present chief of Aundh is a Hindu of the Brāhman caste, with the title of Pant Pratinidhi. The family is descended from Trimbak Krishna, accountant of Kinhai village in the Koregaon *tāluka* of Sātāra District. In 1690 Rājārām, Sivajī's younger son, raised Trimbak's son Parasurām Pant to the rank of Sardār, and in 1698 he conferred on him the title of Pratinidhi or 'viceroy.' In 1713 the office became hereditary in the family. The chief ranks as a first-class Sardār of the Deccan.

The chief of Phaltan is a Marāthā of the Ponwār clan. One Podaka Jagdeo entered the service of the emperor of Delhi, and was slain in battle in 1327, whereupon the emperor gave the title of Nāyak and a *jāgīr* to his son Nimbrājī. In 1825 the State was attached by the Rājā of Sātāra, who permitted Banājī Nāyak to succeed in 1827 on payment of a *nazarāna* or succession fee of Rs. 30,000. On his death in the following year Phaltan was again attached by the Sātāra government until 1841, when the widow of the deceased chief was permitted to adopt a son. The chief is styled Nimbālkar and ranks as a first-class Sardār of the Deccan.

The chiefs of Aundh and Phaltan became tributaries of the British Government on the lapse of the Sātāra territory. Both families hold *sanads* authorizing adoption, and in matters of succession follow the custom of primogeniture. Aundh pays

no tribute now, while Phaltan pays Rs. 9,600 in lieu of a small mounted contingent.

The population of the Agency in 1901 was 109,660, dwelling in one town and 142 villages, compared with 131,529 in 1891, the decrease being due to the famines of 1896–7 and 1899–1900. It is distributed between the two States as under:—

States.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.
Aundh . .	447	...	71	63,921	143	− 2
Phaltan . .	397	1	71	45,739	115	− 31
Agency total	844	1	142	109,660	128	− 17

Hindus numbered 104,376; Musalmāns, 4,118; and Jains, 1,166. The principal castes are Brāhmans (5,000), Dhangars (14,000), Kunbīs (29,000), Mahārs (8,000), Mālīs (6,000), Marāthās (11,000), and Rāmoshis (5,000). More than half of the population are supported by agriculture.

The soil is of two kinds, black and red, an intermediate variety being found in Aundh. Of the total area, 25 square miles are under forest, and 76 square miles are not cultivable. The area of cultivable land is 708 square miles, of which 697 square miles were cultivated in 1903–4, and 34 square miles were irrigated. Indian millet, *jowār*, wheat, cotton, sugar-cane, and gram are the chief crops. Garden land is mostly watered from wells. Building timber, extensive sheep-grazing lands, and salt are the chief natural resources; the weaving of cotton and silk goods and the carving of stone idols are the only manufactures of importance in Phaltan. The main exports are cotton, molasses, oil, and clarified butter; imports include piece-goods, metals, and miscellaneous European goods. In the town of Phaltan a number of Gujarāti Vānīs carry on a brisk trade between the coast and the interior.

The Agency suffered severely from famine in 1876–7, 1896–7, and 1899–1900, when a good deal of land fell waste. In 1896–7 the maximum number of persons on relief works exceeded 1,500, while in 1899–1900 it was nearly 4,000, and more than Rs. 40,000 was spent on famine relief in that year. The States were first visited by plague in 1896, and 4,400 persons fell victims up to the end of 1903: namely, 4,000 in Aundh and 400 in Phaltan.

The Collector of Sātāra is Political Agent for both States. When the States became tributaries of the British Government in 1849, the *jāgīrdārs* retained all their former rights and privileges, with the exception of the power of life and death and of adjudication upon serious criminal cases. Their administration is conducted on the principles of British law. Criminal and civil justice is administered by the chiefs themselves, with the aid of subordinate courts. Heinous offences requiring capital punishment or transportation for life are tried by the Political Agent, assisted by two assessors, the preliminary proceedings being conducted by the *jāgīrdārs*. The gross annual revenue of the Agency is about 4¼ lakhs: Phaltan 2 lakhs, and Aundh 2¼ lakhs. The chief sources of revenue are: land, 3 lakhs; forest and excise, Rs. 21,000. The excise and salt arrangements are in the hands of Government. Survey operations were commenced in 1869, and a revision settlement was introduced in 1894–5 in both States. In Aundh the rates vary per acre from Rs. 1–2 to Rs. 4 on 'dry' land, and from Rs. 3 to Rs. 10 in the case of garden lands, while on rice land the maximum rate is Rs. 8. In Phaltan the assessment rates vary from Rs. 1–4 to Rs. 2–8 per acre. The regular police in Phaltan number 95 and in Aundh 83, in addition to irregular police for guard and escort purposes, numbering 32 in Phaltan and 87 in Aundh. There were 33 schools with 1,287 pupils in Phaltan, and 27 with 1,117 pupils in Aundh, in 1903–4. About 3,000 persons are annually vaccinated in the Agency. The number of dispensaries is three, one at Phaltan treating annually 9,000 patients, and two in Aundh treating 8,100 patients.

Atpādi (*Athpādi*).—Village in the State of Aundh, Bombay, situated in 17° 25′ N. and 74° 59′ E. Population (1901), 5,027. It is famous for its cattle of the Khilar breed, reared by Dhangars. In consequence of its situation on a loop-road connecting the Karād-Pandharpur and Karād-Nāgār roads, the town is much visited by pilgrims to Pandharpur. About 12 miles distant is the well-known temple of Nāth at Kharsumdi, largely frequented by pilgrims, at which a cattle fair is held twice a year. Country blankets and coarse cloth are manufactured at Atpādi and exported to the Konkan. The village contains a post office, a dispensary, and a school teaching elementary English.

Phaltan.—Chief town of the State of Phaltan, Bombay, situated in 17° 59′ N. and 74° 28′ E., 37 miles north-east of Sātāra. Population (1901), 9,512. The town was founded

by Nimbrājī in the fourteenth century. The streets are well kept and clean, and the road round the town is shaded by trees. The municipality, established in 1868, had an income of over Rs. 14,000 in 1903–4. Gujarāti Vānīs carry on a brisk trade between the coast and the interior. The town contains a dispensary.

Bhor State.—State in the Poona Political Agency, Bombay, lying between 18° and 18° 45′ N. and 73° 14′ and 73° 15′ E., with an area of 925 square miles. From the Mahādeo Hills in Sātāra District Bhor stretches north-west over the Western Ghāts in the south-west of Poona and east of Kolāba, with a breadth varying from 35 miles in the south to 15 miles in the north. Above the Western Ghāts, the Muthā flows in the north and the Nīra in the south, and below the hills the Ambā flows south-west. The State is occupied by basaltic rocks of the Deccan formation. The climate of that part which is above the Ghāts resembles that of Poona, and the climate of the portion below that of Kolāba. The rainfall varies from 26 inches at Vichitragarh to 139 inches at Sudhāgarh. The annual fall at Bhor averages 37 inches.

Bhor is one of the feudatories of the Sātāra State, having been bestowed upon Shankrājī Nārāyan, Pant Sachiv, in 1697 by Rājā Rām, the son of Sivajī, for his services. The family of the chief are Brāhmans, and hold a *sanad* authorizing adoption. They follow the rule of primogeniture, and the succession has been maintained by several adoptions. The State was allied with the British Government by a treaty of 1820, and became a feudatory like other Sātāra *jāgīrs* on the lapse of the Sātāra State in 1849. From that year to 1887 it was under the political control of the Collector of Sātāra, but was then transferred to Poona. The chief has the title of Pandit of Bhor and Pant Sachiv, and ranks as a first-class Sardār of the Deccan. A tribute of Rs. 10,000, being the commuted value of an elephant subsidy once annually furnished by the chief, is paid to the British Government. The present chief has enjoyed a personal salute of 9 guns since the Delhi Darbār of 1903, in recognition of his loyalty and efficient administration.

The population was 137,268 in 1901, compared with 155,699 in 1891, inhabiting one town (BHOR) and 483 villages. Shirwal, a municipal village, contains a series of Buddhistic caves of the same plain type as KARĀD in Sātāra District. Hindus numbered 135,000 and Musalmāns 1,700. The principal castes are Brāhmans (5,000), Marāthās (75,000), Kunbīs (14,000),

Dhangars (5,000), and Mahārs (14,000). Except a few cotton-weavers, the great majority of the people are supported by agriculture.

The prevailing type of soil is red. About 404 square miles are occupied for cultivation. The principal crops are rice and *nāgli*. A small area of land is irrigated from wells and fair-season dams. The area of forests is 104 square miles. Iron-smelting, formerly of some importance, has been abandoned, and the State is poor in industries. The chief roads are the Mahād-Pandharpur (cart-road), the Poona-Belgaum (mail-road), and the Poona-Panvel road down the Borghāt. Bhor contains seven post offices managed by the State, and is one of the States in Bombay which have postal arrangements of their own.

The State suffered severely from famine in 1896–7 and again in 1899–1900. Relief measures were necessary on both occasions. In the latter famine the maximum number of workers was 2,000, and nearly Rs. 63,000 was spent on famine relief. The State has also suffered from plague.

Bhor is under the political supervision of the Collector of Poona, and the administration is conducted in close accordance with British laws. Criminal and civil justice are administered by the chief himself, with the aid of subordinate courts. Except that the trial of all persons for capital offences requires the Political Agent's sanction, the Pant Sachiv exercises full criminal and civil powers, and his decision in other cases is not subject to appeal to the Political Agent. The revenue is 3½ lakhs, chiefly derived from land (2¼ lakhs), excise (Rs. 20,000), and forests (Rs. 11,000). The State has recently (1896–9) been surveyed, and the rates of assessment vary from Rs. 12 to one anna per acre. This settlement enhanced the revenue by Rs. 24,500. The State contains two municipalities, Bhor and Shirwal, with an aggregate income in 1903–4 of Rs. 5,240. The police force consists of 215 men. There are 43 schools with 1,545 pupils. The Bhor dispensary treated 19,256 patients in 1903–4 at a cost of Rs. 2,000. In the same year 3,716 persons were vaccinated.

Bhor Town.—Chief town of the State of Bhor, Bombay, situated in 18° 9′ N. and 73° 53′ E., 25 miles south of Poona. Population (1901), 4,178. It is administered as a municipality, with an income of Rs. 4,190 in 1903–4.

Akalkot State.—State in the Sholāpur Agency, Bombay, lying between 17° 18′ and 17° 44′ N. and 75° 56′ and 76° 28′ E., with an area of 498 square miles. It is bounded on the north

by Hyderābād; on the east by a portion of the Kurandvād (Junior) State and Hyderābād; on the south by Bijāpur District and Hyderābād; and on the west by the District of Sholāpur. Akalkot forms part of the table-land of the Deccan. The country is open, undulating, and remarkably free from tracts of waste or forest land. A few streams cross the State, but they are all small; the Bori, the largest, is perennial, as also are the Bhīma and Sīna, forming the south-west boundary. The State lies entirely within the limits of the Deccan trap, and is occupied by the basaltic rocks of that formation. They are largely covered with black soil. The climate is comparatively cool and agreeable, with an average rainfall of 32 inches. The temperature rises to 108° in May and falls to 62° in January, the average being 85°.

In the beginning of the eighteenth century the Akalkot territory, which had previously formed part of the Musalmān kingdom of Ahmadnagar, was granted by Sāhū, Rājā of Sātāra, to a Marāthā Sardār, the ancestor of the present chief, subject to the supply of a contingent of horse. In 1849, after the annexation of Sātāra, the Akalkot chief became a feudatory of the British Government. In 1868 the contingent of horse was disbanded, and a yearly money payment of Rs. 14,592 was substituted. The family follows the rule of primogeniture, and holds a *sanad* authorizing adoption. In 1866, on account of misrule, the chief was deposed, and the State placed under the management of the British Government until his son attained his majority in 1891. In 1896, on the death of the latter, a minor was adopted, and the State is now again administered by Government. The chief ranks as a first-class Sardār of the Deccan.

The population was 82,047 in 1901, compared with 75,774 in 1891. The State contains one town, AKALKOT, and 102 villages. Hindus numbered 70,000 and Musalmāns 11,000. The principal castes are Lingāyats (10,000), Vānīs (9,000), Mahārs (9,000), Marāthās (8,000), and Dhangars (6,000). The Musalmāns are chiefly Shaikhs (8,500). Half the population is supported by agriculture and 20,000 by industries, mainly weaving.

The soil is mostly black and mixed, and is watered chiefly from wells and *budkis* or lifts near the river banks. Of the total area, 13 square miles are forest land, and 39 are uncultivable. In 1903-4 the area under cultivation was 436 square miles, of which 16 square miles were irrigated. The chief crops are *bājra*, *jowār*, rice, *tur*, linseed, gram, wheat, cotton,

and sugar-cane. The chief's garden at Akalkot has large groves of coco-nut and areca palms. From 1882 about 50 square miles were set apart as forest Reserves, but recently this area was reduced to 13 square miles. In 1903–4 experiments were carried out in Mozambique ground-nuts, American sweet-potatoes, and Egyptian cotton, of which only the first met with success. In the same year the State purchased and exhibited improved implements of husbandry. Since 1902–3 the State has maintained a land bank, which advances money for the improvement and purchase of lands. The only industry of any importance is the weaving of coarse cotton cloth, turbans, and *sārīs*. The chief exports are *jowār*, wheat, and linseed. Copper and brass utensils, salt, groceries, &c., are imported from Sholāpur and Bombay. The Great Indian Peninsula Railway runs north-west and south-east for 18 miles through the State, with two stations, one at Boroti and the other at Karabgaon, about 7 miles from Akalkot town. The Southern Mahratta Railway also crosses the south-west corner of the State, with a station at Tadval. Since the scarcity of 1871 and the famine of 1876 the State has suffered twice from famine, in 1896–7 and again in 1899–1902. Relief measures were necessary on each occasion.

The Collector of Sholāpur is Political Agent for the State, and British laws have been adopted. The Political Agent has the powers of a Civil and Sessions Judge in deciding appeals. The revenue in 1903–4 was $4\frac{1}{2}$ lakhs, chiefly derived from land (Rs. 3,16,000). The British Government pays Rs. 9,606 to the State annually in lieu of customs. No salt is allowed to be produced. Opium is supplied by the British Government, with whom the control of the excise system rests. The State was surveyed in 1866–71. A revised settlement was completed and new rates were introduced in 1894, guaranteed for thirty years. The revised assessment, excluding water assessment on newly irrigated land, showed an average increase of 28 per cent. over the previous settlement. The average assessment per acre on cultivable land is about R. 1. The army consists of 50 men; the police number 67. In 1903–4 there were 35 schools in the State, attended by 1,531 pupils. The dispensary at Akalkot treated 11,000 patients, and a travelling dispensary nearly 2,000. In the same year 2,362 persons were vaccinated.

Akalkot Town.—Chief town of the State of the same name, Bombay, situated in 17° 31′ N. and 76° 15′ E., 7 miles from Karabgaon, on the Great Indian Peninsula Railway.

Population (1901), 8,348. Akalkot contains a small mosque of some architectural merit. There is a fine armoury in the palace; and the public gardens, with the memorial fountain and tombs of the chiefs, are very handsome. In 1903-4 a new market and a school of industry were opened in the town.

Bijāpur Agency.—An Agency in the Southern Marāthā Country, Bombay, under the supervision of the Collector of Bijāpur District, who is *ex-officio* Political Agent. It comprises the Sātāra *jāgīr* of Jath and the small State of Daphlāpur. The latter, which has an area of 96 square miles, is an integral part of the State of Jath, to which it will lapse on the demise of the widow of the late chief. The Agency lies between 16° 50′ and 17° 18′ N. and 75° 1′ and 75° 31′ E., to the west of Bijāpur District, the total area, including Daphlāpur, being 980 square miles. Except for a number of small hills near the town of Jath, the country is flat. Small feeders of the Mān and Bhīma rivers flow through the Jath State. The climate closely resembles that of Bijāpur.

The ruling family claim descent from Lakhmājī, headman of the village of Daphlāpur. In 1680 Satvāji Rao, his son, was appointed *deshmukh* of the subdivisions of Jath, Karajgi, Bardol, and Vanad, and was one of the leading Bijāpur nobles. Temporarily independent after the overthrow of the Bijāpur kingdom, the *deshmukh* finally submitted to Aurangzeb. In 1820 the British Government entered into an engagement with the ancestor of the present chief of Jath, confirming him in the estates he then held. In 1827 the Jath estate was attached by the Rājā of Sātāra to pay off the chief s debts, and restored in 1841. On the annexation of Sātāra in 1849, Jath and Daphlāpur, like other SĀTĀRA JĀGĪRS, became feudatories of the British Government. The latter has more than once interfered to adjust the pecuniary affairs of the Jath *jāgīr*, and, in consequence of numerous acts of oppression on the part of the ruler, was compelled to assume direct management from 1874 to 1885. The chief of Jath, who belongs to the Marāthā caste, is styled Deshmukh and ranks as a first-class Sardār. He holds a *sanad* of adoption, and the succession follows the rule of primogeniture. The small State of Daphlāpur is managed by a Rānī, aided by her *kārbhāri*.

The population (Jath and Daphlāpur) fell from 79,786 in 1891 to 68,665 in 1901, residing in two towns, JATH (population, 5,404) and Daphlāpur (1,475), and 117 villages, the decrease during the decade being due to famine. The only place of importance is Jath town. Hindus numbered 64,052

and Musalmāns 4,357. The chief castes are Brāhmans, Lingāyats, Marāthās, Rāmoshis, Vaddars, Berads, Mahārs, and Chamārs.

The soil is black and red, but for the most part mixed with gravel. It is poor in the west, but improves as the Bor river is approached. The area of arable land in Jath and Daphlāpur is 797 and 90 square miles respectively; and the area cultivated in 1903-4 was 779 and 89 square miles respectively. The staple crops are *bājra* and *jowār*. Cotton, wheat, gram, and safflower are also grown. The land is specially suited for cattle-breeding. Forest Reserves cover 56 square miles, of which all but 2⅓ square miles are assigned for grazing. The road from Karād to Bijāpur serves both States. There are no industries of importance. The States suffered in the famines of 1896-7 and 1899-1902, which involved both of them in debt and brought cholera in their train. In 1902 plague broke out in Daphlāpur, and in 1903 in Jath.

The Collector of Bijāpur is Political Agent for both States. There are four criminal and two civil courts in Jath and one in Daphlāpur, where the Rānī exercises the powers of a magistrate of the first class, and, in civil matters, of a first-class Subordinate Judge. Appeals lie to the Political Agent, and original cases beyond their ordinary powers are referred to him by both States. The revenue of the Agency in 1903-4 was about 3½ lakhs of rupees: namely, more than 3¼ lakhs in Jath and Rs. 22,500 in Daphlāpur, chiefly derived from land (2 lakhs). The Jath State pays to the British Government Rs. 6,400 per annum in lieu of the service of 50 horsemen, and a tribute of Rs. 4,840. A survey settlement was first introduced in Jath in 1878 and in Daphlāpur in 1870. It has been of great benefit to the people in sweeping away a number of arbitrary cesses. The rates are moderate. There is no military force; but a force of police is maintained, numbering 81 in Jath and 17 in Daphlāpur. In 1903-4 there were 24 schools in the Agency with 622 pupils; the dispensary at Jath treated about 4,600 patients; and the persons vaccinated numbered nearly 2,000.

Jath.—Chief town of the State of the same name, in Bombay, situated in 17° 3′ N. and 75° 16′ E., 92 miles south-east of Sātāra town, 95 miles north-east of Belgaum, and 150 miles south-east-by-south of Poona. Population (1901), 5,404. The town is administered as a municipality, with an income (1903-4) of Rs. 3,040.

Kolhāpur State (or Karavira, or Karvir).—State in the

Kolhāpur and Southern Marāthā Political Agency, Bombay, lying between 15° 50′ and 17° 11′ N. and 73° 43′ and 74° 44′ E.[1], with an area of 3,165 square miles. It is bounded on the north by the Vārna river, which separates it from the District of Sātāra; on the north-east by the Kistna river, separating it from Sāngli, Mirāj, and Kurandvād; on the east and south by the District of Belgaum; and on the west by the Western Ghāts, which divide it from Sāvantvādi on the south-west and Ratnāgiri on the west. Kolhāpur comprises portions of the two old Hindu divisions of MAHĀRĀSHTRA and CARNATIC, a distinction which is still marked in the language of the people, part of whom speak Marāthī and the remainder Kanarese.

Subordinate to Kolhāpur are nine feudatories, of which the five following are important: Vishālgarh, Bāvda, Kāgal Senior, Kāpsi, and Ichalkaranjī. The general statistics of all of these are shown in the following table:—

Subdivisions and Feudatories.	Area in square miles.	Villages.	Population, 1901.	Revenue, in thousands of rupees, 1903-4.
Kolhāpur Proper.				
Petha Kārvīr	311	142	164,351	Not available.
Petha Panhāla, including Chanwad *mahāl*	468	202	113,085	
Petha Alte	219	49	113,585	
Petha Shirol, including Rāybāg *mahāl*	328	64	88,828	
Gad-Hinglaj, including Katkol *mahāl*	487	166	124,342	
Petha Bhūdhargarh	489	193	94,761	
Total	2,302	816	698,952	43,91
Feudatory Jāgīrs.				
Vishālgarh	235	66	35,258	2,02
Bāvda	243	69	44,400	1,44
Kāpsi	32	10	13,754	60
Kāgal Senior	112	40	49,233	3,26
Kāgal Junior	...	...	...	67
Ichalkaranjī	241	78	68,414	3,29
Torgal	...	...	...	44
Himmat Bahādur	...	...	...	85
Sarlashkar Bahādur	...	...	...	69
Total	863	263	211,059	13,26
Grand total	3,165	1,079	910,011	57,17

Physical aspects.

Stretching from the ridge of the Western Ghāts eastwards into the plain of the Deccan, Kolhāpur includes tracts of

[1] These spherical values do not include certain outlying tracts, like Torgal.

widely different character and appearance. In the west, along the spurs of the main chain, are situated wild and picturesque hill slopes and valleys, producing timber, myrabolams, &c., and covered with forests. The central belt, which is open and fertile in parts, is crossed by several lines of low hills running east and west at right angles to the main range. Farther east, the land becomes more open, and presents the unpicturesque uniformity of a well-cultivated and treeless plain, broken only by an occasional river. Among the western hills are perched the forts of Panhāla, Vishālgarh, Bāvda, Bhūdhargarh, and Rāngna, ancient strongholds of the Kolhāpur chieftains. The State is watered by eight streams of considerable size; but though navigable during the rainy months by trading boats of 2 tons, none is so large that it cannot be forded in the hot season. The only lake of any importance is that of Rankāla, near the city of Kolhāpur. It has lately been improved at a considerable cost. Its circumference is about 3 miles, and its mean depth 33 feet. Except in the south, where there are some ridges of sandstone and quartzite belonging to the Kalādgi (Cuddapah) formation, Kolhāpur comes within the area of the great Deccan trap field.

Flora and fauna.

The chief trees are the *ain*, *nana*, *hirda*, *kinjal*, *jāmbul*, and *bāva*; minor products are bamboos, myrabolams, and grass. Tigers and leopards are found in the hills. Bison, bears, and wild dogs are occasionally met with.

Climate and rainfall.

At an elevation of about 1,800 feet above the sea, Kolhāpur enjoys on the whole a temperate climate. In the west, with its heavy rainfall and timber-covered hills and valleys, the air keeps cool throughout the year; but in the dry tracts below the hills, suffocating easterly winds prevail from April to June During the hot months the hill forts, rising about 1,000 feet above the plain, afford a pleasant retreat. The annual rainfall is heaviest at Bāvda, where it reaches 207 inches, and least at Shirol, where it is only 21 inches. Kolhāpur and Ajra record an average fall of 38 and 77 inches. Plague first appeared in the State in 1897, and caused more than 62,000 deaths by the end of 1903–4.

History.

The members of a branch of the Silāhāra family, which was settled above the Western Ghāts, possessed the territory lying round Kolhāpur and in the north-west of Belgaum District from about the end of the tenth century to early in the thirteenth century. About 1212 the country passed to the Deogiri Yādavas. The ancient Hindu dynasty was subverted by the Bahmani kings of the Deccan, and the country after-

wards came under the rule of Bijāpur. In 1659 Sivajī obtained possession of the forts which, though taken and retaken many times, finally remained with the Marāthās on the death of Aurangzeb.

The present Rājās of Kolhāpur trace their descent from Rājā Rām, a younger son of Sivajī, the founder of the Marāthā power. After the death of Rājā Rām in 1700, his widow placed her son Sivajī in power at Kolhāpur. But in 1707, when Shāhū, the son of Sambhājī, Sivajī's elder son, was released from captivity, he claimed the sovereignty over all the possessions of his grandfather and fixed his capital at SĀTĀRA. Disputes between the two branches of the family continued for several years, till in 1730 a treaty was concluded, under the terms of which the younger branch agreed to yield precedence to Shāhū, and to abandon all claims to the country north of the Vārna and east of the Kistna, while Shāhū of the elder branch recognized Kolhāpur as an independent principality. On the death of Rājā Rām's younger son in 1760, the direct line of Sivajī became extinct; and a member of the family of the Bhonslas was adopted under the name of Sivajī III. The prevalence of piracy from the Kolhāpur port of Mālvān compelled the Bombay Government to send expeditions against Kolhāpur in 1765, and again in 1792, when the Rājā agreed to give compensation for the losses which British merchants had sustained since 1785, and to permit the establishment of factories at Mālvān and Kolhāpur. Internal dissensions and wars with the neighbouring States of the Patvardhans, Sāvantvādi, and Nipāni gradually weakened the power of Kolhāpur. In 1812 a treaty was concluded with the British Government, by which, in return for the cession of certain forts, the Kolhāpur chief was guaranteed against the attacks of foreign powers, while on his part he engaged to abstain from hostilities with other States, and to refer all disputes to the arbitration of the British Government.

During the war with the Peshwā in 1817, the Rājā of Kolhāpur sided with the British. In reward, the tracts of Chikodi and Manoli, formerly wrested from him by the chief of Nipāni, were restored. But these tracts did not long remain a part of the State. They were resumed by the British Government in 1829, owing to the serious misconduct of the Rājā. Shāhājī, *alias* Bāva Sāhib, who came to the throne in 1822, had proved a quarrelsome and profligate ruler; and, in consequence of his aggressions between 1822 and 1829, the British were three times obliged to move a force against him.

PUNJAB, CIVIL SECRETARIAT * LIBRARY, LAHORE *

On his death in 1837 a council of regency was formed to govern during the minority of Sivajī IV. Quarrels arose among the members of this council, and the consequent anarchy led to the appointment by the British Government of a minister of its own. The efforts, however, which he made to reform the administration gave rise to a general rebellion, which extended to the neighbouring State of Sāvantvādi. After the suppression of this rising, all the forts were dismantled, and the system of hereditary garrisons was abolished. The military force of the State was disbanded and replaced by a local corps. In 1862 a treaty was concluded with Sivajī IV, who was bound in all matters of importance to be guided by the advice of the British Government. In 1866, on his deathbed, Sivajī was allowed to adopt a successor in his sister's son, Rājā Rām. In 1870 Rājā Rām proceeded on a tour in Europe, and, while on his return journey to India, died at Florence on November 30, 1870. Sivajī Mahārājā Chhatrapati V succeeded Rājā Rām by adoption. In 1882 he became insane, and Government was compelled to appoint a council of regency, headed by the chief of Kāgal as regent. Sivajī V died on December 25, 1883, and having no issue, was succeeded by adoption by Jaswant Rao, *alias* Bābā Sāhib, under the name of Shāhājī, who still rules. The Mahārājā of Kolhāpur holds a patent authorizing adoption, and succession follows the rule of primogeniture. He is entitled to a salute of 19 guns.

Population. The population of Kolhāpur and its feudatories was 804,103 in 1872, 800,189 in 1881, 903,131 in 1891, and 910,011 in 1901, residing in 9 towns and 1,070 villages. The towns are KOLHĀPUR (population, 54,373), the capital, ICHALKARANJĪ (12,920), SHIROL (7,864), KĀGAL (7,688), GAD-HINGLAJ (6,373), WADGAON (5,168), Hatkalangda (3,680), Katkol (4,562), and Malkāpur (3,307). The density is 319 persons per square mile. About 90 per cent. are Hindus; and of the remainder, 38,533 are Musalmāns, 50,924 Jains, and 2,517 Christians. The chief Hindu castes are Brāhmans (33,000), of whom two-thirds are Deshasths (22,000), while Konkanasths number 5,000. Marāthās (432,000) form the majority of the Hindu population, and are largely cultivators, describing themselves as Kunbīs. The Dhangar or shepherd caste numbers 36,000, mostly nomads. Lingāyats, who are chiefly found in the south, number 79,000, largely traders and shopkeepers. Mahārs (74,000), Māngs (17,000), and Sutārs or carpenters (15,000) are the remaining castes of numerical importance.

Kolhāpur is remarkable for the large number of Jain cultivators (36,000), who are evidence of the former predominance of the Jain religion in the Southern Marāthā country. They are a peaceable and industrious peasantry. The Musalmāns chiefly describe themselves as Shaikhs (31,000). Native Christians numbered 2,462 in 1901; and of these 1,087 were Roman Catholics, 1,048 Anglicans, and 100 Presbyterians. Nearly 71 per cent. of the total population are supported by agriculture, while 13 per cent. belong to the industrial classes.

Agriculture.

The soil is of four kinds: namely, *kāli* or black, *tāmbdi* or red, *mali* or *malav*, the alluvial land, and *khāri* or *pāndhari* or white. Of these, the black and red soils are the most valuable. About one-third of the arable area is good soil yielding garden crops; but the remainder is mediocre, or, in the hilly parts, poor. Of the 2,354 square miles of cultivable land, 2,019 square miles have been brought under cultivation. In 1903–4 the area actually cultivated was 1,591 square miles, the remaining 428 square miles being current fallows. *Jowār* occupied 470 square miles, rice 262, *nāchni* 171, and *bājra* 108 square miles. Other crops are sugar-cane, tobacco, cotton, chillies, *kusumba*, and ground-nuts. A few coffee and cardamom plantations yield a small out-turn. Irrigation is rare, and is carried on chiefly from wells or pools dug in stream beds. The area of 'reserved' forest is 341 square miles, while 182 square miles are protected; the forest products are teak, sandal-wood, black-wood, myrabolams, grass, and honey. The hollows of rocks and decayed trees contain the comb of the *pova* bee, which is highly esteemed.

Minerals.

Iron ore of three varieties is found in Kolhāpur territory. It is most plentiful in Vishālgarh, Panhāla, Bhūdargarh, and Kolhāpur proper, near the main range of the Western Ghāts. In these places it is generally found near the surface, in laterite. Formerly the smelting of iron was an industry of some importance; but, owing to the cost of manual labour, the increased price of fuel, and the low rates of freight from England, the Kolhāpur metal cannot compete with that imported from Europe. Stone is the only other mineral product of the State. There are several good quarries, especially one in a place known as JOTIBA'S HILL, with a fine-grained basalt, that takes a polish like marble.

Manufactures, trade, and communications.

Rosha oil is manufactured in the State. Other manufactures are pottery, hardware, coarse cotton, woollen cloth, felt, liquor, perfumes, and lac and glass ornaments. Coarse sugar, tobacco, cotton, and grain are the chief exports; and refined sugar,

spices, coco-nuts, piece-goods, silk, salt, and sulphur are the principal imports. The most noteworthy centres of local trade with permanent markets are Kolhāpur city, Shāhupur, Wadgaon, Ichalkaranjī, and Kāgal. The Southern Mahratta Railway passes through the State, being connected with Kolhāpur city by a branch opened in 1891, the property of the State. Six principal lines of road pass through Kolhāpur territory, the most important being that from Poona to Belgaum, which crosses the State from north to south. The total number of post offices is 42, of which 9 are situated in the feudatory *jāgīrs*.

Famine.

Kolhāpur, with its good rainfall and rich land, is less liable to famine than the adjacent Deccan Districts. Distress occurred in the years 1876–7, 1891–2, 1896–7, and 1899–1900, and relief measures were necessary on each occasion. The highest daily attendance of persons in receipt of relief was 164,344 in 1876–7, 6,200 in 1891–2, 61,616 in 1896–7, and 7,000 in 1899–1900. About 3 lakhs were spent on relief in 1876–7, Rs. 40,000 in 1891–2, 7 lakhs in 1896–7, and Rs. 51,000 in 1899–1900.

Administration.

The nine feudatory estates are administered by their holders. Kolhāpur proper is divided into six *pethas* or *tālukas* and three *mahāls*, and is managed by the Mahārājā with the advice of the Political Agent, Kolhāpur and Southern Marāthā Jāgīrs.

Civil and criminal justice.

The Mahārājā exercises full powers in criminal and civil matters, including the power of life and death; but he cannot try British subjects for capital offences without the permission of the Political Agent. The State contains 64 criminal courts with varying powers from Sessions Judge to third-class magistrate. The feudatory chiefs have in most cases power to imprison up to seven years and the civil powers of a District Judge. During their minority, their *kārbhāris* exercise jurisdiction as magistrates and sub-judges. The commonest forms of crime are theft and hurt.

Municipalities.

There are municipalities at Kolhāpur, Narsobā Vādi, Ichalkaranjī, Wadgaon, Hatkalangda, Shirol, Gadhinglaj, Katkol, and Malkāpur. The income of the Kolhāpur municipality exceeds Rs. 60,000, while that of the remaining eight amounts in all to about Rs. 23,000. The Kolhāpur municipality was suspended in 1904, owing to maladministration.

Land revenue.

The land revenue administration is controlled by an officer styled the Chief Revenue Officer, corresponding to the Commissioner of a British Division. The Kolhāpur land tenures belong to three main classes: namely, alienated or *ināmi*, State

or *sheri*, and personal or *ryotwāri*. Of these, the alienated are subdivided into personal, religious, and political grants, and grants for non-military service, most of the alienations having been made between 1618 and 1838. State or *sheri* lands are the Mahārājā's personal holdings, and are managed by the revenue officers, who let them to the highest bidder for a term of years. The chief varieties of the *ryotwāri* tenure are: the *mirāsi*, under which the payment of a fixed rental prevented the holder from eviction; the *upri*, under which land can be given to a fresh holder after one or two years; the *chāl khand*, under which the holder pays a little more or less than the fixed rate; and the *vatani*, under which hereditary village officers hold lands for less than the usual assessment. The survey settlement, first introduced in 1886, is at present under revision. The assessment rates per acre in force are: 'dry crop,' from R. 1 to Rs. 4-4; rice land, from Rs. 5-1 to Rs. 10; garden land, from Rs. 8 to Rs. 10. The revision survey up to the end of 1903 enhanced the total assessment by Rs. 91,771, or 11½ per cent.

Revenue and expenditure.

The Kolhāpur State proper had in 1903-4 a revenue of 44 lakhs, chiefly derived from land (12 lakhs), excise (1¾ lakhs), and Local funds (1½ lakhs). The expenditure amounted to 43 lakhs, of which nearly 3 lakhs was devoted to the Mahārājā's private expenses, 3 lakhs was spent on public works, and 2 lakhs on the military department. The revenue of the *jāgīrs* is given in the table on p. 513. Opium, excise, and salt are under the control of the State. Since 1839, when the Kolhāpur mint was abolished, the British rupee has been the only current coin.

Army, police, and jails.

The Mahārājā maintains a military force of 710 men. The strength of the police is 873 men, maintained at a cost of Rs. 80,000. The Central jail at Kolhāpur had an average daily population of 243 in 1903-4, the cost per prisoner being Rs. 74. There are 17 subordinate jails.

Education.

Of the total population 4 per cent. (7·7 males and 0·2 females) could read and write in 1901. Excluding a few missionary institutions, there were 250 schools in 1903-4, including a college, a high school, and a technical school. The total number of pupils on the rolls was 8,823, and the expenditure on education was about 1½ lakhs. The State possesses 15 libraries, of which the largest is in Kolhāpur city, and 8 local newspapers.

Medical.

It also contains a hospital and 15 dispensaries, which treated nearly 168,000 patients in 1903-4, a lunatic asylum with 18 patients, and a leper asylum with 93 inmates. In the same year 21,000 persons were vaccinated.

Alta.—Village in the Alta *tāluka* of Kolhāpur State, Bombay, situated in 16° 45′ N. and 74° 18′ E., about 12 miles north-east of Kolhāpur city and 6 miles south of the Vārna river, surrounded on three sides by wooded heights. Population (1901), 4,965. Objects of interest include a Musalmān prayer-place called Ramzān Dargāh, which enjoys rent-free lands assessed at Rs. 613 per annum; and westward of the village the temples of Sidoba, Dhulaba, Alam Prabhu, a Lingāyat saint, and of Rāmling. Annual fairs are held at all these shrines. The temple of Alam Prabhu is supposed to have obtained its name from the emperor Alamgīr or Aurangzeb, who is said to have presented a footstool to it on the occasion of a visit. Live-burial or *jīvantsamādh* used to be performed by devotees of Siva in front of the shrine, the last authentic case having occurred in 1808. The cave-temple of Rāmling is probably of Buddhist or Jain origin, but has been adapted to Brāhmanical worship. In front of it is a massive Hemādpanti structure on stone pillars.

Chinchli.—Village in the State of Kolhāpur, Bombay, situated in 16° 34′ N. and 74° 50′ E., on the Kistna, about 42 miles south-east of Kolhāpur city. Population (1901), 3,540. Chinchli is a station on the Southern Mahratta Railway. The place is chiefly known for the shrine of the goddess Mahākālī, popularly called Māyāka. Four times a year pilgrims visit the shrine; and on the full moon of Māgh (January–February) a large fair is held, which is attended by about 35,000 people.

Gad-Hinglaj.—Head-quarters of the *tāluka* of the same name in Kolhāpur State, Bombay, situated in 16° 12′ N. and 74° 25′ E., on the left bank of the Hiranyakeshi river, close to the Sankeshwar-Parpoli pass road, 45 miles south-east of Kolhāpur city. Population (1901), 6,373. About three hundred years ago, want of water is said to have forced the people to move the town to the river bank from an older site nearly a mile to the north-west. Every Sunday a market is held, when large quantities of rice and other grain are brought for sale. The chief temple in honour of Kāleshwar in the centre of the town is built of rubble and mortar. About three miles north of Gad-Hinglāj is a temple of Bahiri, where every March a fair is held, attended by about 2,000 people.

Ichalkaranjī.—Chief town of the feudatory *jāgīr* of the same name in Kolhāpur State, Bombay, situated in 16° 41′ N. and 74° 31′ E., near the Pānchgangā river, about 18 miles east of Kolhāpur city. Population (1901), 12,920. The town is administered as a municipality, with an income in

1903–4 of Rs. 4,500. The climate is healthy, but the water of the wells is brackish. Good drinking-water has been brought in iron pipes from the Pānchgangā by the help of a steam pump raised on a tower built in the river. Every year in October a large fair attended by about 2,000 people is held in honour of Venkatesh, the guardian deity of the State.

Jotiba's Hill (also called Vādi Ratnāgiri).—Hill in the State of Kolhāpur, Bombay, situated in 16° 48′ N. and 74° 13′ E., about 9 miles north-west of Kolhāpur city. It rises about 1,000 feet from the plain in a truncated cone, and, though disconnected, forms part of the Panhāla spur which stretches from the crest of the Western Ghāts to the Kistna. On the wooded hill-top is a small village with 1,400 inhabitants, mostly priests of Jotiba. From very ancient times this hill has been considered especially sacred. In the middle of the village is a group of temples, three of which are dedicated to Jotiba, under the names of Kedārling, Kedāreshwar, and Rāmling. According to a local legend, Ambā Bai of Kolhāpur, being disturbed by demons, went to Kedārnāth in the Himālayas, practised severe penance, and prayed him to destroy the demons. In answer to her prayers Kedāreshwar came to Jotiba's Hill, bringing with him and setting up the present Kedār *lingam*. The original temple is said to have been built by one Nāvjī Saya. In its place Rānojī Sindhia built the present temple in 1730. The second temple of Kedāreshwar was built by Daulat Rao Sindhia in 1808. The third temple of Rāmling, including the dome, was built about 1780 by one Māljī Nilam Panhālkar. In a small domed shrine in front of the temple of Kedāreshwar are two sacred bulls of black stone. Close to these temples is a shrine sacred to Chopdai, which was built by Priti Rao Himmat Bahādur in 1760. A few yards outside of the village stands a temple of Yamai, built by Rānojī Sindhia. In front of this are two sacred cisterns, one of which is said to have been built by Jijābai Sāhib about 1743; the other, called Jāmadagnya *tīrth*, was built by Rānojī Sindhia. Most of the temples on Jotiba's Hill are made of a fine blue basalt which is found on the hills. In many parts the style of architecture, which is strictly Hindu, is highly ornamented, several of the sculptured figures being covered with brass and silver plates. The chief object of worship is Jotiba, who, though called the son of the sage Pangand, is believed to have been Pangand himself, reincarnated to help the rulers of the Deccan in their fights with the demons. According to tradition, Jotiba's destruction of one

of the demons named Ratnāsur gave the place the name of Ratnāgiri. In honour of the victory over the demon, a yearly fair is held on the full moon of Chaitra (March–April) attended by 40,000 or 50,000 people, some of whom come from great distances. Besides this great fair, small fairs are held every Sunday and full moon day and on the 6th of the bright half of Shrāvan (August). On these days the image is carried round the temple in a litter with great pomp.

Kāgal.—Chief town of the larger feudatory *jāgīr* of the same name in Kolhāpur State, Bombay, situated in 16° 34′ N. and 74° 20′ E., 10 miles south-east of Kolhāpur city. It lies in the valley of the Dudhgangā about a mile south of the river, surrounded by rich garden land and shaded by fine old mango-trees. Population (1901), 7,688. There are ruins of mosques and temples. The old fort was destroyed by Jaswant Rao Sindhia of Kolhāpur in 1780, and a new fort was built about 1813 by Hindu Rao Ghatge. Of the public buildings lately raised at a cost of about one lakh, the most important are three large resthouses, three temples, one of which contains the *kārbhārī's* office, and water-works from which pipes supply the town reservoirs with water. Every year in Kārtik (October–November) a fair is held in honour of Gaibi Pīr, at which the chief spends about Rs. 2,000. The fair is attended by 10,000 people from Kolhāpur and the neighbouring villages.

Kolhāpur City (or Karavira, or Karvir).—Capital of Kolhāpur State, Bombay, situated in 16° 42′ N. and 74° 16′ E., opposite a gap in the Western Ghāts; terminus of the Kolhāpur State Railway, which joins the Southern Mahratta Railway at Mirāj. Population (1901), 54,373. Hindus numbered 47,140; Muhammadans, 5,311; Jains, 1,401; and Christians, 511. Much has recently been done to improve the sanitation of the city and to adorn it with handsome edifices. Some of the new public buildings challenge comparison with the most successful efforts of modern Indian architecture. Among them may be mentioned the college, the high school, the technical school, the hospital, and a dispensary. The municipality, which has recently been suspended for maladministration, had an income in 1903–4 of nearly Rs. 63,000. The expenditure in the same year was Rs. 56,000, of which nearly Rs. 37,000 was devoted to lighting and conservancy and Rs. 6,400 to public works.

Kolhāpur has long been held in high esteem for the antiquity of its sacred shrines; and all current legends state that the present capital originally existed as a purely religious

settlement, of which the great temple dedicated to the goddess Mahālakshmi remains to mark the site. The cloisters formerly surrounding this great temple now lie buried many feet under the surface of the earth, which appears to have undergone at no distant period a serious convulsion. The extreme antiquity of Kolhāpur is borne out by the numerous Buddhist remains that have been discovered in the immediate neighbourhood, notably a crystal relic casket found in a large *stūpa*, about 1880, bearing on its lid an inscription in Asoka characters of the third century B.C. Small temples are frequently brought to light by excavations. It is believed that Karavira is the older and more important capital of the State, and that the transfer of the political capital from Karavira to the originally religious settlement of Kolhāpur was probably necessitated by some convulsion of nature, of which there are so many evidences in the neighbourhood of Kolhāpur. The ancient Karavira is now a petty village on the north side of Kolhāpur city.

Panhāla.—Fort on one of the summits of the Panhāla spur of the Western Ghāts, in Kolhāpur State, Bombay, situated in 16° 48′ N. and 74° 8′ E. The Panhāla uplands are 2,772 feet above the sea and about 700 feet above the Kolhāpur plain, and the hill-top crowned by Panhāla fort rises about 275 feet above the uplands. The fort, which is about 4½ miles in circumference, is ascribed to the Silhāra Bhoja Rājā in the eleventh century, and the small citadel on the summit bears his name. The gateways are the work of the Bahmani dynasty of the fifteenth century, and the Tīn Darwāza is a good specimen of its kind, with much tracery-work on the jambs and architrave. On the establishment of the Adil Shāhi dynasty of Bijāpur in 1489, Panhāla was fortified with great care. In 1659, immediately after the murder of Afzal Khān, Sivajī took Panhāla from Bijāpur. Thirty years later, when Sambhājī was made prisoner by Aurangzeb's general at Sangameshwar in Ratnāgiri, Panhāla came under the Mughals. In 1701 Panhāla was taken from the Mughals by Rāmchandra Pant Amātya, the ancestor of the present chief of Bāvda. In 1705 Tārā Bai, the widow of Rājā Rām, made Panhāla her head-quarters, and the seat of the Kolhāpur government was not moved from Panhāla to Kolhāpur till 1782. About 1827 Panhāla and Pāvangarh were for a time made over to the British Government. In 1844, during the minority of Sivajī IV, Panhāla and Pāvangarh were taken by rebels, who seized Colonel Ovans, the Resident of Sātāra, when on tour, and

imprisoned him in Panhāla. A British force under General Delamotte was sent against the rebels, and on December 1, 1844, breached the fort wall, took it by storm, and dismantled the fortifications. A garrison of 1,845 militia and 100 pieces of ordnance were left to guard the fort. Panhāla is the head-quarters of the Panhāla subdivision, and is the best health resort in the Kolhāpur State. Opposite Sambhājī's temple is another dedicated to Jijābai Sāhib, the wife of Sambhājī Mahārāj (1712–60). The most important Musalmān building is the shrine of Sadhoba, a Muhammadan saint. It is surrounded by a wall, and is 29 feet square and, including the dome, 50 feet high. This place is said to have been the seat of the sage Parāsar, whose name the Karvir *Mahatmya* associates with several objects of interest on Panhāla hill. Among these objects is a rock-cut cave of the sage to the south of the fort.

Rangna Fort (or Prasidhagarh).—A favourite fort of Sivajī, situated on a flat-topped hill in Kolhāpur State, Bombay, about 55 miles south-west of Kolhāpur city. The hill is steep on three sides, with an easy ascent on the north. The top is girt by a wall of rough blocks, leaving three pathways down the hill. The fort is 4,750 feet from east to west, by 2,240 feet from north to south. It was taken in 1659 by Sivajī and repaired, and has since remained in Marāthā hands, but was dismantled in 1844 by order of the British.

Rāybāg.—Head-quarters of the petty division of the same name in Kolhāpur State, Bombay, situated in 16° 30′ N. and 74° 52′ E., on the Southern Mahratta Railway, 24 miles south-east of Shirol. Population (1901), 3,804. In the eleventh century it is said to have been the chief town of a Jain chiefship. According to a local story, the town was formerly so wealthy that on one market day the maid of a rich merchant bid Rs. 5,000 for a gourd. By this offer she outbid the servant of Randullah Khān, the local Bijāpur governor. The servant in anger told her master that all the best things in the market went to the merchants. The governor, thinking that the town had grown over-wealthy, ordered it to be plundered, a misfortune from which it has never recovered. Most of the inhabitants are Jains and Marāthās, and the town is surrounded by a mud wall. On every Monday a market is held, where grain and coarse cloth are offered for sale. Rāybāg contains three temples, a mosque, and the domed tomb of Randullah Khān, which has recently been repaired. The Someshwar temple is old, and built of huge well-sculptured

blocks of stone. The Sidheshwar temple, which is built of black stone, was repaired in 1875 by the *ināmdārs* or proprietors of the Rāybāg petty division. The Narsingha temple is an underground structure of black stone. The image of Narsingha is richly carved, and is said to have been brought from the Kistna near Jalālpur.

Shirol.—Head-quarters of the subdivision of the same name in Kolhāpur State, Bombay, situated in 16° 44′ N. and 74° 38′ E., about 4 miles north of the confluence of the Pānchgangā and Kistna, and about 6 miles from Shirol Road Station on the Kolhāpur State Railway. Population (1901), 7,864. Shirol is administered as a municipality, with an income of Rs. 2,000. It contains two large temples, two mosques, and a tower. Shirol is sometimes called Ghumat Shirol or 'Shirol-with-the-dome,' because it used to contain the large domed tomb of a Bijāpur officer named Nūr Khān, which Parasurām Bhau Patvardhan is said to have destroyed in 1779. The town is guarded by a ditch and a wall and is strengthened by an inner citadel. During the wars between Kolhāpur and the Patvardhans in the latter part of the eighteenth century Shirol changed hands several times. In 1780 it was finally taken by Sivajī III, and has since remained under Kolhāpur. At a suburb known as Narsoba Vādī a large fair, attended by 10,000 people, is held twice a year in honour of Dattātraya.

Torgal.—Head-quarters of a feudatory *jāgīr* of the same name in Kolhāpur State, Bombay, situated in 15° 57′ N. and 75° 15′ E. Population (1901), 2,477. It is enclosed by a bastioned mud wall, now somewhat dilapidated, and contains a citadel built in 1700 which is also surrounded by a mud wall. Torgal is said to have been built about 1100 by a chief named Bhutankush, and is referred to in inscriptions of the twelfth and thirteenth centuries. In 1690 it was taken from Bijāpur by Narsojī Rao, and assigned to him as a military grant by Rājā Rām, the head of the Marāthās. An old temple of Bhutnāth is said to have been built by Bhutankush, but appears to be of later date.

Vishālgarh Fort.—Fort in the feudatory *jāgīr* of the same name in Kolhāpur State, Bombay, crowning the Gajāpur hill, situated in 16° 54′ N. and 73° 47′ E., about 45 miles north-west of Kolhāpur city; 3,200 feet long by 1,040 feet broad. The walls, gateways, and towers are almost entirely ruined. Population (1901), 93. Besides the old mansion of the Kolhāpur Pratinidhi, the chief building is a mosque with the tomb of Hazrat Malik Rahān Pīr, which is visited both by

is carried on from rivers, wells, and tanks. The climate is the same as that of the Deccan generally, the air being very dry, especially when east winds prevail. The chief crops are millet, rice, wheat, gram, and cotton ; and the manufactures are coarse cotton cloth and native articles of apparel.

The chief of Sāngli is a member of the Patvardhan family, whose founder Haribhat, a Konkanasth Brāhman, was the family priest of the chief of Ichalkaranjī. On the occasion of the marriage of the chief's son with the daughter of the first Peshwā, Haribhat was brought to the notice of the Peshwā, one of whose successors, Mādhav Rao, granted the *jāgīr* to Haribhat's son Govind Rao and two grandsons. In 1772 the *jāgīr*, which included MIRĀJ, descended to Chintāman Rao, grandson of Govind Rao, the original grantee. Chintāman Rao being a child of six years, the State was managed during his minority by his uncle Gangādhar Rao. When the minor came of age, he quarrelled with his uncle, who attempted to keep him out of his rights. Eventually the estate was divided between them, the uncle retaining Mirāj and Chintāman Rao taking Sāngli. The revenue of Sāngli exceeded 6 lakhs and that of Mirāj was nearly 5 lakhs, the estates being respectively subject to a service of 1,920 and 1,219 horse. Chintāman Rao, the grandfather of the present chief of Sāngli, became a feudatory of the British Government on the downfall of the Peshwā in 1818. In 1846 the East India Company presented him with a sword in testimony of their respect for his high character, and in acknowledgement of his loyalty. Chintāman Rao died in 1851. The chief of Sāngli does not now pay any contribution on account of military service, having ceded lands of the annual value of over 1¼ lakhs in lieu thereof. The family holds a *sanad* authorizing adoption. The rule of primogeniture is not strictly followed in the matter of succession.

The chief ranks as a first-class Sardār in the Southern Marāthā Country, and has power to try capital offences in the case of his own subjects. He enjoys an estimated revenue of 15 lakhs, and maintains a police force of 497 men, of whom 54 are mounted, 323 are unarmed, and 120 are armed. In 1903–4 there were 89 schools, including nine girls' schools, one high school, and three Anglo-vernacular schools ; the number of pupils was 3,997. The State contains six municipalities ; the largest are SĀNGLI with an income of Rs. 13,500, and SHĀHĀPUR with Rs. 12,900. In the one jail and eight lock-ups of the State 208 prisoners were confined in 1903–4. There are seven dispensaries, attended by about 44,000

patients in 1903-4. In the same year about 6,000 persons were vaccinated.

Mirāj State (Senior Branch).—State under the Political Agent for Kolhāpur and the Southern Marāthā Country, Bombay, with an area of 339 square miles. It consists of three divisions: a group of villages in the valley of the Kistna, a second group in the south of Dhārwār District, and a third in the midst of Sholāpur District. The State contains 5 towns, the chief being MIRĀJ (population, 18,425), the head-quarters, and LAKSHMESHWAR (12,860); and 59 villages. The population in 1901 was 81,467, Hindus numbering 68,660, Muhammadans 8,778, and Jains 3,866. The portion of the State which is watered by the Kistna is flat and rich; the remaining parts lie low, and are surrounded by undulating lands and occasionally intersected by ridges of hills. The prevailing soil is black. Irrigation is carried on from rivulets, tanks, and wells. As in the rest of the Deccan, the climate is always dry, and is oppressively hot from March to May. The principal crops are millet, wheat, gram, sugar-cane, and cotton. Coarse cotton cloth and musical instruments are the chief manufactures.

Mirāj was originally a portion of SĀNGLI, from which it was detached in 1808. In 1820 it was, with the sanction of the British Government, divided into four shares, and the service of horsemen was apportioned to each. Two of these shares lapsed in 1842 and 1845 from failure of male issue; the two others remain. The whole area of the State has been surveyed and settled. The chief ranks as a first-class Sardār in the Southern Marāthā Country. He has power to try his own subjects for capital offences. The revenue in 1903-4 was 3½ lakhs, of which 2·7 lakhs was from land. Tribute of Rs. 12,558 is payable to the British Government. The family holds a *sanad* authorizing adoption, and follows the rule of primogeniture in matters of succession. Of the five municipalities in the State, Mirāj and Lakshmeshwar have incomes of Rs. 15,500 and Rs. 7,000 respectively. There are 25 schools with 1,237 pupils. The police force numbers 235 men, maintained in 1903-4 at a cost of Rs. 23,400. There are three jails, with a daily average of 55 prisoners. The State contains three dispensaries, which afforded relief to 35,371 persons in 1903-4. In the same year 1,789 persons were vaccinated.

Mirāj State (Junior Branch).—State under the Political Agent for Kolhāpur and the Southern Marāthā Country, Bombay, with an area of 211 square miles. It consists of three divisions: a group of villages adjoining the Bankāpur *tāluka*

of Dhārwār District; a second near the Tāsgaon *tāluka* of Sātāra District; a third near the Pandharpur *tāluka* of Sholāpur District, which also includes four *inām* villages in Poona District. There are 3 towns, the largest being Bhudgaon (population, 3,591), where the chief resides; and 31 villages. The population in 1901 was 35,806, Hindus numbering 32,484, Muhammadans 2,034, and Jains 1,288. The soil is generally black. Indian millet, wheat, gram, and cotton are the chief crops; and coarse cotton cloth is the principal manufacture. The history of this branch of the family is the same as that of the Senior Branch, given above. The chief ranks as a first-class Sardār in the Southern Marāthā Country, and has power to try his own subjects for capital offences. The family holds a *sanad* authorizing adoption, and follows the rule of primogeniture in matters of succession. The estimated revenue is about 4 lakhs, and the expenditure nearly 3 lakhs. Tribute of Rs. 6,412 is payable to the British Government. The police force numbers 143. In 1903-4 there were three jails, with a daily average of 23 prisoners. There are 30 schools in the State, attended by 991 pupils. Two dispensaries treat about 14,500 persons. In 1903-4 about 800 persons were vaccinated.

Kurandvād State.—State under the Political Agent for Kolhāpur and the Southern Marāthā Country, Bombay. At present it consists of two divisions, one belonging to the Senior ruler of Kurandvād, and the other to the Junior chiefs. The Senior division comprises one town, KURANDVĀD (population, 10,451), the head-quarters; and 37 villages. Of these, Tikota and Wategaon, the former in Bijāpur and the latter in Sātāra District, are quite isolated from the main *jāgīr*, of which 25 villages lie close to and south of the town of Belgaum, while the remaining 10 lie in the valley of the Kistna, intermixed with British territory and with the territory of the Sāngli, Kolhāpur, and Mirāj States. The Senior division, with its head-quarters also at Kurandvād, comprises two towns and 34 villages—17 in the neighbourhood of and mostly to the south of Belgaum, 15 on the borders of the Nizām's Dominions and to the east of Sholāpur District, and 2 within the limits of the Kolhāpur State.

The Kurandvād State was a grant made by the Peshwā to a member of the Patvardhan family on condition of military service. In 1811 the State was divided into two parts, one of which was called Kurandvād and the other Shedbāl. The latter share lapsed to the British Government in 1857, owing to failure of heirs. In 1855 a further division of Kurandvād

into Senior and Junior was effected by the British Government between Raghunāth Rao and Ganpat Rao, Vināyak Rao, and Trimbak Rao. When Trimbak Rao died in 1869 without male issue, the whole of his share of the *jāgīr* was bestowed on Ganpat Rao and Vināyak Rao, with the exception of the share he possessed in the *inām* estate, which reverted to the Senior chief, Raghunāth Rao. The descendants of Harihar Rao and Vināyak Rao, brothers of Raghunāth Rao, now jointly form the Junior branch.

The Senior chief's estate contains an area of 185 square miles and a population (1901) of 42,474. Hindus number 34,386; Muhammadans, 4,452; and Jains, 3,532. The staple crops are millet, rice, wheat, gram, and cotton. Coarse cotton cloth and articles of female apparel are the principal manufactures. The total tribute received by the British Government from Kurandvād amounts to Rs. 9,619, which is paid by the Senior branch for the whole State. The Senior chief of Kurandvād ranks as a first-class Sardār in the Southern Marāthā Country, and has power to try his own subjects for capital offences. He enjoys an estimated revenue of nearly 2 lakhs. His family holds a *sanad* of adoption, and succession follows the rule of primogeniture. In 1903–4 there were 16 schools in the State with 497 pupils, and two dispensaries treating about 7,000 patients. About 800 persons are vaccinated annually.

The share of the Junior chiefs contains an area of 114 square miles and a population (1901) of 34,003. Hindus number 28,037; Muhammadans, 3,413; and Jains, 2,498. The family holds no *sanad* authorizing adoption, and succession does not usually follow the rule of primogeniture. The treaty of 1819 entered into by the Senior branch is considered as binding upon the Junior chiefs. The estimated revenue is about $1\frac{2}{3}$ lakhs of rupees. Two towns, Maindargi and Dudhani, are administered as municipalities, with an income in 1903–4 of Rs. 850. In 1903–4 there were 10 schools with 429 pupils, and one dispensary, which usually treated about 8,000 patients, but which was closed in that year. The police force numbers 67. In 1903–4, 850 persons were vaccinated.

Jamkhandi State.—State under the Political Agent for Kolhāpur and the Southern Marāthā Country, Bombay, lying between 16° 26′ and 16° 47′ N. and 75° 7′ and 75° 37′ E., with an area of 524 square miles[1]. The State was granted by the

[1] These spherical values exclude the outlying *tāluka* of Kundgol, situated between 15° 7′ and 15° 9′ N. and 75° 13′ and 75° 23′ E.

Peshwā to a member of the Patvardhan family. In 1808 it was divided into two shares, one of which, Tāsgaon, lapsed to the British Government in 1848, through failure of heirs, while the other forms the present Jamkhandi State. The population in 1901 was 105,357, the density being 201 persons per square mile. Hindus formed 87 per cent. and Muhammadans 10 per cent. of the total. The State contains 8 towns, the chief being JAMKHANDI (population, 13,029); and 79 villages. A soft stone of superior quality is found near the village of Marigudi. The crops include cotton, wheat, the ordinary varieties of pulse, and millet; and the manufactures, coarse cotton cloth and native blankets for home consumption. The chief, who is a Brāhman by caste, ranks as a first-class Sardār in the Southern Marāthā Country. He holds a *sanad* of adoption, and succession follows the rule of primogeniture. He has power to try his own subjects for capital offences. He maintains a force of 43 horse and 214 foot soldiers; and he pays to the British Government a tribute of Rs. 20,516. The revenue in 1903-4 was nearly 5·5 lakhs, of which 4·4 lakhs was derived from the land; and the expenditure was about 5 lakhs. A survey was introduced in the State in 1881-2. The State possesses six municipalities, the largest being JAMKHANDI with an income of Rs. 10,000, and the smallest Hunnur with an income of Rs. 600. In 1903-4 there were 42 schools, including an English school, and the total number of pupils was 1,588. The State has a Central jail and 4 subordinate jails, with a daily average of 36 prisoners in 1903-4; and one hospital and three dispensaries, which treated 38,100 patients. In the same year about 2,300 persons were vaccinated.

Mudhol State.—State under the Political Agent for Kolhāpur and the Southern Marāthā Country, Bombay, lying between 16° 7′ and 16° 27′ N. and 75° 4′ and 75° 32′ E., with an area of 368 square miles. It is bounded on the north by Jamkhandi State; on the east by the Bāgalkot *tāluka* of Bijāpur; on the south by Belgaum and Bijāpur and by Kolhāpur State; and on the west by the Gokāk *tāluka* of Belgaum. The population in 1901 was 63,001, Hindus numbering 57,896, Muhammadans 4,826, and Jains 277. The State contains 3 towns, including MUDHOL (population, 8,359), the residence of the chief; and 81 villages. The general aspect of the country is flat, with slight undulations. The scenery is monotonous, and, except during the rainy season, presents a parched and barren aspect. There are no mountains, the small hill ranges not being more than 150 feet high. The greater portion

of the soil is black, the remainder being the inferior description of red and stony land known as *māl*. The only river passing through the State is the Ghātprabha, which is navigable during the monsoon by boats of less than a ton burden; but it is never used as a means of communication for travelling or trade. It waters in its course about half the villages of the State, and irrigates by its annual floods a considerable area. Irrigation is also effected by damming up small rivulets, and turning off the water in the direction required; by drawing water from wells and pools by means of leathern bags; and, where the elevation of the bed of a reservoir is sufficient, by leading channels into the neighbouring fields. As in other parts of the Deccan, the climate is very dry, the heat from March to May being oppressive. The staple crops are *jowār*, wheat, gram, and cotton. Cotton cloth and articles of female apparel are the chief manufactures.

The chief of Mudhol belongs to the Bhonsla family of the Marāthā caste or clan, descended, according to tradition, from a common ancestor with Sivajī the Great. This name, however, has been entirely superseded by the second designation of Ghorpade, which is said to have been acquired by one of the family who managed to scale a fort, previously deemed impregnable, by fastening a cord around the body of a *ghorpad* or iguana. All that is authentically known of the history of the family is that it held a high position at the court of Bijāpur, from which it received the lands it still holds. The Mudhol chiefs were the most determined opponents of Sivajī during his early conquests; but on the overthrow of the Muhammadan power they joined the Marāthās, and accepted military commands from the Peshwā. The great-grandfather of the present ruler (who died in 1856) was the first who became a feudatory of the British Government.

The chief administers his estate in person. He enjoys an estimated revenue of more than 3 lakhs, and pays a tribute of Rs. 2,672 to the British Government. He officially ranks as a first-class Sardār in the Southern Marāthā Country. There are two civil courts in the State. An appeal lies to the chief, who has power to try his own subjects for capital offences. The family of the chief holds a title authorizing adoption, and follows the rule of primogeniture in matters of succession. There are 24 schools with 1,123 pupils; and three municipalities, with an income in 1903–4 of Rs. 6,400. The police force numbered 104 in the same year, and the one jail in the State contained a daily average of 17 prisoners. In 1903–4 the

State maintained three dispensaries which afforded relief to 26,000 persons, and 1,300 persons were vaccinated.

Rāmdurg State.—State under the Political Agent for Kolhāpur and the Southern Marāthā Country, Bombay, with an area of 169 square miles. It is bounded on the north by the Torgal subdivision of Kolhāpur State; on the south by Nargund in Dhārwār District; on the east by the Bādāmi *tāluka* of Bijāpur District; and on the west by the Navalgund *tāluka* of Dhārwār District. The population in 1901 was 37,848, dwelling in two towns, of which the larger is RĀMDURG (population, 9,452), the head-quarters, and 37 villages. Hindus number 35,072 and Muhammadans 2,716.

The general appearance of the country is that of a plain, surrounded by undulating lands and occasionally intersected by ranges of hills. The prevailing soil is rich black. The Malprabha river flows through the State, and is utilized for irrigation. The staple crops are wheat, gram, *jowār*, and cotton. Coarse cotton cloth is the principal manufacture. The climate is the same as that of the Deccan generally, the heat from March to May being oppressive.

Nargund and Rāmdurg, two strong forts in the Kanarese-speaking country, were occupied by the Marāthās in their early struggles; and, by favour of the Peshwās, the ancestor of the present Rāmdurg family was placed in charge of them. About 1753 the estates yielded 2½ lakhs, and were required to furnish a contingent of 350 horsemen. They were held on these terms until 1778, when the country was brought under subjection by Haidar Alī. In 1784 Tipū Sultān made further demands. These were resisted, and, in consequence, the fort of Rāmdurg was blockaded by Tipū. After a siege of seven months, Venkat Rao of Nargund surrendered, and, in violation of the terms of capitulation, was carried off a prisoner with his whole family into Mysore. On the fall of Seringapatam in 1799 Venkat Rao was released, and the Peshwā restored to him Nargund and lands yielding 1¼ lakhs, and granted to Rām Rao the fort of Rāmdurg, with lands yielding Rs. 26,000. The two branches of the family continued to enjoy their respective States till 1810, when the Peshwā made a new division of the lands, in equal shares, between Venkat Rao and Nārāyan Rao, the sons of Rām Rao. On the fall of the Peshwā in 1818, the estates were continued to these two chiefs by an engagement. Nargund subsequently lapsed, and is now included in the Navalgund *tāluka* of Dhārwār District.

The chief, who is a Konkanasth Brāhman, ranks as a first-

class Sardār in the Southern Marāthā Country, and has power to try his own subjects for capital offences. He enjoys a revenue of nearly 2 lakhs. The family of the chief holds a *sanad* authorizing adoption, and follows the rule of primogeniture. There are two municipalities, with an aggregate income in 1903–4 of Rs. 6,280. In the same year the police force numbered 80, and the only jail had a daily average of 31 prisoners. The State contained 17 schools in 1903–4, with 1,059 pupils. Two dispensaries were attended by about 11,000 patients in the same year, and nearly 900 persons were vaccinated.

Dodvad.—Village in the State of Sāngli, Bombay, situated in 15° 41′ N. and 75° 1′ E. Population (1901), 4,867. Dodvad has an imposing fort built on a rocky hillock. The walls, which are 20 feet high, are half of stone and white earth and half of bricks. The fort is surrounded by a ditch 25 feet wide and 12 to 19 deep. The rampart, the parapet, and the bastions are in good condition. The village contains a dispensary.

Jamkhandi Town.—Capital of the State of the same name in Bombay, situated in 16° 30′ N. and 75° 22′ E., 70 miles north-east of Belgaum, and 68 miles east of Kolhāpur. Population (1901), 13,029. Jamkhandi is a municipality, with an income in 1903–4 of about Rs. 10,000. The town has about 500 looms and an extensive trade in silk cloths. It contains a high school and a hospital. An annual fair is held in honour of the god Umā Rāmeshwar, lasting for six days and attended by 20,000 people.

Kavlapur.—Town in the State of Sāngli, Bombay, situated in 16° 89′ N. and 74° 72′ E. Population (1901), 5,127. The town, formerly called Shingnāpur and Kavandanyapur, is built on stony undulating ground, and lies 5 miles north-east of Sāngli town, near a small stream which rises in the Dandoba hills and falls into the Kistna. This stream supplies the town with drinking-water, the well-water being brackish and unhealthy. The town contains a substantial schoolhouse, with accommodation for 100 boys, a Jain *basti*, a Muhammadan *dargāh*, and fourteen Hindu temples, the most important of which is that of Siddheshwar.

Kundgol.—Head-quarters of the *tāluka* of the same name in Jamkhandi State, Bombay, situated in 15° 15′ N. and 75° 18′ E. Population (1901), 2,286. It is administered as a municipality, with an income in 1903–4 of Rs. 3,000. The town contains a dispensary. The chief local trade is in cotton.

Kurandvād Town.—Capital of the State of the same

name in Bombay, situated in 16° 41′ N. and 74° 38′ E., on the right bank of the Pānchgangā river, close to its junction with the Kistna. Population (1901), 10,451. The town is the residence of the representatives of both branches of the ruling family, and was formerly well protected, but the defences are now mostly in ruins. It has no public buildings of any interest, save the palace of the chiefs, and a temple dedicated to Vishnu. Outside the town, at a distance of about a mile, is a fine masonry bathing *ghāt* on the Kistna. The water-supply is dependent on the Pānchgangā, from which a windmill pump raises water for the town. There is a charitable dispensary. The town is not a part of the *jāgīr*, having been given in *inām* to an ancestor of the chiefs by the Rājā of Kolhāpur. It is administered as a municipality, with an income in 1903–4 of Rs. 2,700.

Lakshmeshwar.—Head-quarters of a subdivision of the same name in Mirāj State, Bombay, situated in 15° 7′ N. and 75° 31′ E., about 40 miles south-east of Dhārwār. Population (1901), 12,860. Weaving of cotton cloth is largely carried on. There are temples of Someshwar and Lakshmiling about a thousand years old, Jain *bastīs*, and a Musalmān mosque about four hundred years old. In honour of the god Someshwar a fair, attended by about 5,000 people, is held yearly on the tenth of the bright half of Vaishākh (May–June). About fifty inscriptions have been found referring to the early dynasties ruling in this part of the country. The town is administered as a municipality, with an income in 1903–4 of Rs. 7,300.

Mahālingpur.—Town in the State of Mudhol, Bombay, situated in 16° 23′ N. and 75° 9′ E., at the foot of a small hill 12 miles north-west of Mudhol town. Population (1901), 6,345. The town is named after the temple of Mahālingeshwar which stands on the top of the hill. It is the largest trading town in the State, and has a reputation for its bodice-cloths or *khanas*; there are about 700 looms. In honour of the god Mahālingeshwar a fair, attended by 10,000 people, is held yearly on the tenth of the bright half of Bhadrapad (September–October). Mahālingpur is administered as a municipality, with an income in 1903–4 of Rs. 2,800. It contains a dispensary.

Maindargi.—Head-quarters of the *tāluka* of the same name in Kurandvād State, Bombay, situated in 17° 28′ N. and 76° 20′ E. Population (1901), 6,153. It is administered as a municipality, with an income of about Rs. 400. Weaving of coarse cloth and blankets is carried on.

Malgaon.—Town in Mirāj State (Senior Branch), Bombay, situated in 16° 53′ N. and 74° 47′ E. Population (1901), 5,774. It is administered as a municipality, with an income in 1903–4 of Rs. 700. A temple of Daudnāth, which is supposed to have been dedicated by the hero of the Rāmāyana, stands on a hill about 3 miles from the town; and just outside is the shrine of a Muhammadan saint named Bawafan, at which a yearly fair, attended by both Hindus and Muhammadans, is held. Malgaon is famous for its betel-nut gardens, the produce of which is exported to Kolhāpur, Poona, Bombay, and other places. It is connected with Mirāj, 6 miles away, by a good road, which serves as a feeder to the Southern Mahratta Railway. The town contains a branch post office and a school.

Mangalvedha.—Head-quarters of the subdivision of the same name in the State of Sāngli, Bombay, situated in 17° 31′ N. and 75° 29′ E., between the angle formed by the confluence of the Bhīma and the Mān, about 13 miles south of Pandharpur and 15 miles north-east of Sāngli town. Population (1901), 8,397. Mangalvedha was founded before the Muhammadan period by a Hindu prince named Mangal, whose capital it was. Judging from the remains of an old temple, the place must have been of some importance and wealth. After its destruction by the Muhammadans, the materials were used in building the fort in the centre of the town. The town is administered as a municipality, with an income in 1903–4 of Rs. 4,300. The fort contains a Jāma Masjid and a citadel known as the Chauburjī, said to have been built by the Pāndhres who were in charge of the *pargana* under the Sātāra Rājās (1720–50). The town contains a dispensary.

Mirāj Town.—Capital of the State of Mirāj (Senior Branch) in the Southern Marāthā Country, Bombay, situated in 16° 49′ N. and 74° 41′ E., near the Kistna river, a few miles south-east of Sāngli. Population (1901), 18,425. In 1761 the fort of Mirāj with some *thānas* was assigned by the Peshwā Mādhu Rao to Govind Rao Patvardhan for the maintenance of troops. Mirāj is a large trading town, with two old *dargāhs*, built in 1491. It is administered as a municipality, with an income in 1903–4 of Rs. 15,500. It contains a high school and a dispensary.

Mudhol Town.—Capital of the State of Mudhol, Bombay, situated in 16° 20′ N. and 75° 19′ E., on the left bank of the Ghātprabha, about 12 miles south of Jamkhandi. Population (1901), 8,359. It is administered as a municipality, with

an income in 1903–4 of Rs. 2,700. The town contains a dispensary.

Rabkavi.—Town in the State of Sāngli, Bombay, situated in 16° 28′ N. and 75° 9′ E., on the right bank of the Kistna. Population (1901), 5,748, consisting almost entirely of bankers, traders, and artisans. Local affairs are managed by a municipal body, known as the *Daiva*, with an income of about Rs. 3,800. Rabkavi is an important trade centre. Silk is dyed and made up into various articles of clothing. Cotton is also dyed to some extent, with the permanent dye known as *suranji*. The town appears to have been named after the village goddess Rabbava. It has five temples, of which that of Shankarling is the principal.

Rāmdurg Town.—Capital of the State of Rāmdurg, Bombay, situated in 15° 5′ N. and 75° 2′ E. Population (1901), 9,452. The forts of Rāmdurg and Nargund are said to have been built by Sivajī. Hand-woven cloth is exported from the town, which is administered as a municipality, with an income in 1903–4 of Rs. 4,000. It contains a dispensary.

Sāngli Town.—Capital of the State of Sāngli, Southern Marāthā Jāgīrs, Bombay, situated in 16° 52′ N. and 74° 36′ E., on the Kistna river, a little north of the confluence of the Vārna. Population (1901), 16,829. The income of the municipality in 1903–4 was Rs. 13,500. The fort, in which are the chief's palace and most of the public offices, was built about a hundred years ago. The new town is well laid out with broad streets, and is chiefly occupied by bankers, merchants, and the principal officers of the State. It contains a high school and a dispensary.

Shāhāpur.—Head-quarters of the subdivision of the same name in the State of Sāngli, Bombay, situated in 15° 50′ N. and 74° 34′ E., close to the town of Belgaum. Population (1901), 9,056. Shāhāpur is the most important trading place in Sāngli State. The dyeing of cotton and silk yarn and the weaving of cotton and silk cloth are largely carried on. The population is chiefly composed of bankers, traders, and weavers. The town is governed by a municipal body, with an income of nearly Rs. 13,000. Besides Hindu temples, Shāhāpur has a Protestant church and a Roman Catholic chapel. Methodist Episcopal and Catholic missions are both at work in Shāhāpur. There is also a dispensary.

Shirhatti.—Head-quarters of the subdivision of the same name in Sāngli State, Bombay, situated in 15° 14′ N. and 75° 39′ E., 12 miles south-east of Gadag on the Southern

Mahratta Railway. Population (1901), 4,393. The town is administered as a municipality with an income of Rs. 1,200, and contains a dispensary. The three most important places of interest are the fort, Avlingva's *math*, and Fakīrswāmi's *math*. The fort, according to one account, was built by Khangavnda Desai, and according to another by Ankushkhan of Lakshmeshwar. A fair in honour of Fakīrswāmi is held in April–May, attended by about 30,000 people.

Suribān.—Village in the State of Rāmdurg, Bombay, situated in 15° 53′ N. and 75° 27′ E. It is noted as the place where in 1858 Mr. Manson, Political Agent of the Southern Marāthā Country, was murdered by the Nargund chief. Mr. Manson had incurred much ill-will from his connexion with the Inām Commission, but his frank and kindly disposition gave him considerable influence with the Bombay Carnatic chiefs. Hearing that the Nargund chief had placed guns on his fort, Mr. Manson moved with great speed to the threatened quarter, leaving his escort behind and taking with him only a dozen troopers of the Southern Marāthā Horse. He came to Rāmdurg, where a half-brother of the Nargund chief received him cordially, but advised him not to go to Nargund or through Nargund territory, as the country all round was unsafe. In spite of this warning, Mr. Manson pressed forward that night to Suribān. Meanwhile the Nargund chief, who was greatly incensed at a letter sent by Mr. Manson from Rāmdurg, and who feared that the Political Agent had full knowledge of his treason, went towards Rāmdurg with seven or eight hundred horse and foot. On the way, hearing that Mr. Manson was at Suribān, he turned aside and came to the village about midnight. A band of armed men surrounded the village, came close to the spot where the party was asleep, killed the sentry, and rushed upon Mr. Manson, who was roused from sleep in his palanquin, fired his revolver at his assailants and wounded one, but was immediately overpowered in the palanquin; his head was cut off and taken to Nargund, where it was exposed on the town gate, and his body was thrown into the fire that had been kindled by his party. Most of Mr. Manson's party were killed. On May 30 Lieutenant La Touche came from Kalādgi to Suribān with a party of the Southern Marāthā Horse and recovered Mr. Manson's body.

The villages of Suribān, Manihel, and Shivapeth have been constituted a municipality, with an income in 1903–4 of Rs. 2,300. The population of these three villages in 1901 was 5,260. Suribān contains a dispensary.

Terdāl.—Head-quarters of the subdivision of the same name in Sāngli State, Bombay, situated in 16° 30′ N. and 75° 5′ E., on the right bank of the Kistna river. Population (1901), 6,125. Terdāl is a large trade centre. The weaving of *sārīs*, *dhotīs*, and blankets is the chief local industry, and there was formerly a considerable trade in copper and brass vessels. The temples of Prabhuswāmi and Nemnāth (Jain), built in 1187, are the most important. Terdāl is administered as a municipality, with an income of Rs. 3,000, and contains a dispensary. Formerly it was a walled town, but the battlements are now in ruins.

Khairpur State.—State in Sind, Bombay, lying between 26° 10′ and 27° 46′ N. and 68° 20′ and 70° 14′ E., with an area of 6,050 square miles. It is bounded on the north by Sukkur District; on the east by Jaisalmer State in Rājputāna; on the south by Hyderābād and Thar and Pārkar Districts; and on the west by the Indus river. Its greatest length from east to west is about 120 miles, and its breadth from north to south about 70 miles.

Physical aspects. Like other parts of Sind, Khairpur consists of a great alluvial plain, the part bordering directly upon the Indus being very rich and fertile, though much of it is used as *mohāris* or hunting grounds. With the exception of the fertile strip watered by the Indus and its canals, and of a narrow strip irrigated by the Eastern Nāra, the remainder or three-fourths of the whole area is a continuous series of sandhill ridges covered with a stunted brushwood, where cultivation is altogether impossible. The country generally is exceedingly arid, sterile, and desolate in aspect. In the northern portion of the State is a small ridge of limestone hills, being a continuation of the low range known as the Ghar, which runs southward from Rohri for a distance of about 40 miles. On a western outlying spur of this ridge is situated the fort of Dijī.

Geology. The State of Khairpur is mostly occupied by Indus alluvium and desert formations. The Kīrthar limestone (middle eocene) forms a range of hills in the north-eastern portion, between the Mīr Wah and the Eastern Nāra. On the top of the range are found numerous kinds of marine shells.

Botany. The trees and shrubs are identical with those found in Sukkur District, and good timber is to be met with in different game preserves bordering on the Indus. The *kandi*-tree grows luxuriantly in the valleys, and the *tāli* is largely grown by cultivators.

Fauna. The wild animals found in Khairpur include hyena, wolf,

jackal, fox, wild hog, deer, gazelle, and antelope. The birds and water-fowl are those common to Sind generally, such as bustard, wild geese, snipe, partridges (both black and grey), and various kinds of wild duck (which arrive in the cold season). Snakes abound, as in other parts of Sind.

Climate, temperature, and rainfall.

The climate of Khairpur is agreeable during four months of the year, when the minimum temperature falls to 40°, but is fiercely hot during the remaining eight, when the maximum rises to 113°. The rainfall is slight, but dust-storms are frequent and have the effect of cooling the atmosphere to some extent.

History.

The present chief of Khairpur belongs to a Baloch family called Tālpur; and, previous to the accession of this family, on the fall of the Kalhora dynasty of Sind in 1783, the history of Khairpur belongs to the general history of SIND. In that year Mīr Fateh Alī Khān Tālpur established himself as Rais or ruler of Sind; and subsequently his nephew, Mīr Sohrāb Khān, founded the Khairpur branch of the Tālpur family. The dominions of Mīr Sohrāb Khān were at first confined to the town of Khairpur and a small adjacent tract of country; but by conquest and intrigue he managed to enlarge them, until they extended to Sabzalkot and Kashmor on the north, to the Jaisalmer desert on the east, and to the borders of Cutch Gandāva on the west. About the year 1813, during the troubles in Kābul incidental to the establishment of the Bārākzai dynasty, the Mīrs were able to withhold the tribute which up to that date had been somewhat irregularly paid to the rulers of Afghānistān. Two years earlier, in 1811, Mīr Sohrāb had abdicated in favour of his son Mīr Rustam. But he appears to have endeavoured to modify this arrangement subsequently; and ultimately the jealousy between the two brothers, Mīr Rustam and Alī Murād, was one of the factors in the crisis that caused the intervention of the British power.

In 1832 the individuality of the Khairpur State, as separate from the other Tālpur Mīrs in Sind, was recognized by the British Government in a treaty, under which the use of the Indus river and the roads of Sind were secured to the British. When the first Kābul expedition was decided on, the Sind Mīrs were required to assist the passage of the British through their territories, and allow of the occupation of Shikārpur. Most of the princes showed great disinclination to comply with these demands. But in Khairpur, Ali Murād, who had gradually succeeded in establishing his hold on the *rāisat*, or chiefship, cordially supported the British policy; and the result was that,

after the battles of Miāni and Dabo had put the whole of Sind at the disposal of the British Government, Khairpur was the only State that was allowed to retain its political existence under the protection of the paramount power. In 1866 a *sanad* was granted to the Mīr, under which the British Government promised to recognize any succession to the chiefship that might be in accordance with Muhammadan law. Mīr Alī Murād died in 1894, and was succeeded by his son Mīr Faiz Muhammad Khān, who is entitled to a personal salute of 17 guns. The ordinary salute is 15 guns.

Population. The State contains one town and 153 villages. The population was: (1872) 126,962, (1881) 125,919, (1891) 128,611, and (1901) 199,313. The density is 33 persons per square mile. Distributed by religion, there are 36,000 Hindus and 163,000 Muhammadans. The Hindus are almost entirely Lohānas (33,000), traders and clerks. Among the Muhammadans of foreign extraction, Arabs number 12,000; Baloch, chiefly of the Rind, Burdi, Chandia, Dombki, Jatoi, and Marri tribes, 24,000; Jats, 4,000; and the fishermen or Mohānos, 5,700. Sindīs include 12,000 Sūmras, 58,000 Sammās, and 41,000 returned as Sindīs unspecified. Agriculture supports 69 per cent. of the total population. About 95 per cent. of the Muhammadan males and about one-fourth of the Hindus follow agricultural pursuits. The rest are engaged in trade and other callings. Sindī, Persian, Siraikī, and Baluchī are the languages chiefly spoken.

Agriculture. The soil of Khairpur, especially in the strip adjoining the Indus, is very productive. The tract lying between the Mīr Wah Canal and the Indus is the richest part of the State; but even there cultivation is by no means so extensive as it might be, though of late years the area under tillage has greatly increased. The area of cultivable land in 1903–4 was 1,550 square miles, and fallow lands covered 1,226 square miles. The principal crops are *jowār*, *bājra*, wheat, gram, various pulses, and cotton. Indigo is also cultivated, but the area is decreasing. The fruit trees are the mango, mulberry, apple, pomegranate, date, &c. Recently cultivation has been greatly extended, owing to the construction of new canals and the improvement of old ones. Advances are made to agriculturists, free of interest.

Domestic animals. The domestic animals comprise the camel, horse, buffalo, bullock, sheep, donkey, and mule. The State maintains both horse and donkey stallions for breeding purposes.

Irrigation. Cultivation is dependent on irrigation from the Indus river

by canals. The largest and most important of these is the Mīr Wah, excavated by Mīr Sohrāb, with its feeder the Sathio Wah. The latter, with the Abdul Wah, was excavated in the time of Mīr Alī Murād. Under the rule of the present Mīr a canal department has been formed and the following important branch canals excavated: Faiz Wah, Faiz Bakhsh, Faiz Ganj, Faiz Bahar, and Faiz Manj. The Sathio has been improved, so as to ensure a supply at all seasons. Forced labour for the clearance of canals is now entirely abolished. The Eastern Nāra flows through the desert along an abandoned course of the Indus, and there is a small area of cultivation along it. The area irrigated by the State canals in 1903–4 was 246 square miles. About 20 square miles of land were supplied from wells and tanks in the same year.

Forests. The State possesses 331 square miles of forests, of which 200 square miles are reserved for game by the Mīr. They are in charge of a Forest officer, appointed by the State, and a small staff. The forest trees are the *tāli*, *bahān*, *babūl*, and *kandi*. The bush jungle consists principally of tamarisk; reed grasses are abundant. The game preserves bordering on the Indus supply good timber. The valleys produce fair *kandi* wood. In 1903–4 the revenue from forests amounted to Rs. 26,000.

Minerals. In the desert portion of Khairpur are pits of natron—an impure sesquicarbonate of sodium, always containing sulphate and chloride of sodium. It is generally obtained by means of evaporation. The natron pits are a source of revenue to the Mīr, yielding about Rs. 25,000.

Arts and manufactures. The manufactures comprise cotton fabrics, such as woven sheets and coloured cloth, silk fabrics, silver-ware of different kinds, lacquered woodwork, boots, shoes, horse-trappings, swords, matchlocks, and earthen pottery for local use. Gambat is noted for bed-sheets called *khais*, and Khairpur for cloth-dyeing. Khairpur town possesses one carpet factory, attached to an industrial school.

Trade and commerce. The trade of the State resembles that of the adjoining British towns and villages, the chief exports being cotton, wool, grain, indigo, hand-made cloth, hides, tobacco, &c. The only product which is peculiar to Khairpur and is not common to the surrounding British territory—the Thar and Pārkar District excepted—is carbonate of soda, which is chiefly bought by Bombay merchants. The value of the articles annually exported from Khairpur to British Sind and the State of Jaisalmer has been approximately estimated at about 6 lakhs, and that of the imported articles at somewhat more than

6 lakhs. Of the annual fairs, that of Rānipur, 45 miles from Rohri, is the most important.

Communications. The railway from Hyderābād to Rohri runs through the whole length of the State. In addition to the main trunk road between the same towns, which passes through Khairpur at a distance of about 20 miles from the Indus, and another road connecting them by a somewhat more direct route, there are several roads connecting *tāluka* head-quarters with Khairpur town and Kot Dijī. Ten post offices are maintained in the State. There are six ferries, chiefly on the Indus.

Administration. The rule of the Mīr is patriarchal, but many changes have been made introducing greater regularity of procedure into the administration. The State is divided into five *tālukas*, each under a *mukhtiārkār*. These are: Khairpur and Gambat (forming the Khairpur subdivision), Mīr Wah, Faiz Ganj, and Nāro (forming the Mīr Wah subdivision). Each subdivision is under a *naib-wazīr*. The Wazīr, an officer lent from British service, conducts the administration under the Mīr. The Collector of Sukkur is *ex-officio* Political Agent for the State. The Mīr himself exercises the powers of a High Court, but cannot try British subjects for capital offences without the Political Agent's permission. The Wazīr is District Magistrate and also District and Sessions Judge. The *naib-wazīrs* are subdivisional magistrates and first-class sub-judges, and criminal and civil powers are also exercised by the *mukhtiārkārs*, as well as by two near relatives of the chief. The Indian Penal Code and the Criminal Procedure Code have been adopted. There is also a Court of Elders on the lines of the British Frontier Tribes Act. Steps have recently been taken to remedy the indebtedness of the agriculturists by the introduction of a Relief Act. Civil cases are largely decided by arbitrators, but a more fixed procedure is being introduced. In 1903–4 the number of offences reported to the police was 765, mostly grievous hurt and thefts of cattle and property.

Land revenue. The revenue is collected almost entirely in kind according to the primitive *batai* system, the Mīr receiving a third of the produce of the land, which yields on an average Rs. 58 per acre of cultivation. The gross revenue, which amounted in 1882–3 to 5·7 lakhs, had increased by 1902–3 to 13 lakhs. In 1903–4 the gross receipts amounted to only 8·3 lakhs, the decrease being due to large stocks of grain remaining unsold, untimely rain, and the devastations of locusts. Of the total receipts, which average about 13 lakhs, about Rs. 1,85,000 represents the share of *jāgīrdārs* and other alienees. The

former are chiefly the Mīr's sons and the ladies of his family. The gross receipts in 1903–4 included land revenue 6 lakhs, excise about Rs. 90,000, miscellaneous taxes Rs. 58,000, and forests Rs. 26,000. The land revenue amounts on the average to 10 lakhs a year; but as it is chiefly paid in kind, considerable fluctuations occur in accordance with the character of the harvest. The total expenditure in 1903–4 was 11·6 lakhs, of which more than 2 lakhs was spent on public works, such as canals, buildings, roads, bridges, wells, and tanks. Until the end of 1902 coins of local issue were current in the State, but they have now been replaced by the British silver currency. No tribute is payable by the Mīr.

Miscellaneous revenue. No salt is manufactured, the British Government supplying it at a reduced rate. Poppy is cultivated sufficient to meet the local demand for consumption of opium. Liquor is manufactured, but may not be taken into British territory.

Police and jails. The military force consists of 377 men, of whom 163 are mounted. The total strength of the police, including officers, in 1903–4 was 220, and a preventive service to check opium smuggling from Jaisalmer State has recently been organized. The Central jail is situated at Kot Dijī, and a sub-jail at Khairpur. The daily jail population in 1903–4 averaged 214.

Education. Though recent years have shown some progress, Khairpur is very backward in education. In 1881 there were 6 schools in the State, with an attendance of 2,387 pupils. In 1903–4 the number of schools was 95, attended by 4,586 pupils, of whom 387 were girls. Of the total number of pupils, 4,242 were in primary, 83 in secondary schools, and the remainder in an industrial school. Persian is taught by *mullās*, who receive one pice weekly from the parents of each child. At the industrial school, carpentry, smith-craft, embroidery, turnery, carpet-making, and tailoring are taught.

Medical. The State possesses 3 hospitals and 3 dispensaries. In 1903–4 the number of cases treated was 160,640, of whom 1,292 were in-patients; and the expenditure was Rs. 19,678. About 6,200 persons were vaccinated in the same year.

[A. M. Hughes, *Sind Gazetteer* (1876); E. A. Langley, *Narrative of a Residence at the Court of Mīr Alī Murād*, 2 vols. (1860); C. M. Aitchison, *Treaties, Engagements, and Sanads.*]

Jubo.—Town in the State of Khairpur, Sind, Bombay, situated in 26° 22′ N. and 69° 34′ E. Population (1901), 6,924. The inhabitants chiefly deal in goats and sheep; and rough carpets of goats' hair are also manufactured. Jubo contains the ruins of a fort built by the late Mīr.

Khairpur Town.—Capital of the State of Khairpur, Sind, Bombay, situated in 27° 31′ N. and 68° 48′ E., on the Mīr Wah canal, about 15 miles east of the Indus, and 17 miles south of Rohri. The nearest railway station on the Kotri-Rohri section of the North-Western Railway is Khairpur Mīr, situated about 2 miles to the south-east of the town. Population (1901), 14,014, mainly Musalmāns. The town, which is irregularly built, consists of a collection of mud hovels, intermingled with a few houses of a better class. The palace is seldom used by the ruler, who lives at Kot Dijī, but there is a handsome guest-house. Outside the town stand the tombs of three Muhammadan saints—Pīr Ruhan, Ziā-ud-dīn, and Hājī Jāfar Shāhid. The town contains two hospitals, one of which is for women.

During the flourishing period of the Tālpur dynasty, Khairpur is said to have possessed not less than 15,000 inhabitants, but the place has decreased in importance since the conquest of Sind. The manufactures comprise the weaving and dyeing of cloth of various kinds, goldsmith's work, and the making of firearms, swords, &c. A carpet factory has recently been opened, the workers being under instruction by a teacher brought from the Punjab. The trade is principally in indigo, grain, and oilseeds, which form the chief articles of export; the imports are piece-goods, silk, cotton, wool, metals, &c. On the present site of the town, which owes its rise to Mīr Sohrāb Khān Tālpur, there stood, prior to the year 1787, the village of Boira and the *zamīndāri* or estate of the Phulpotras. It was selected as the residence of the chief Mīrs of Northern Sind; and for some time during Tālpur rule a British Resident was stationed here, in terms of the treaty of April 20, 1838, concluded between the British Government and the Mīrs of Sind.

[E. A. Langley, *Narrative of a Residence at the Court of Mīr Alī Murād*, 2 vols. (1860).]

Tando Masti Khān.—Town in the State of Khairpur, Sind, Bombay, situated in 27° 26′ N. and 68° 42′ E., about 13 miles south of Khairpur town, on the North-Western Railway. The main road from Hyderābād to Rohri runs through the town. Population (1901), 6,465. The town was founded about 1803 by Wadero Masti Khān. To the south are the ruins of Kotesar, supposed to have been once a populous place. On the western side are the shrines of Shāh Jaro Pīr Fazl Nango and Shaikh Makai.

ADEN

Aden.—Peninsula, isthmus, and fortified town, under the Government of Bombay, on the south coast of the province of Yemen, Arabia, situated in 12° 47′ N. and 45° 10′ E. The British territory was formerly limited to the peninsula of Aden proper, extending to the Khor Maksār creek, 2 miles north of the defensive works across the isthmus. In 1868 the island of Sīrah (now connected with the mainland by a masonry causeway) and the peninsula of Jebel Ihsān, or Little Aden, were acquired by purchase from the Sultān of Lāhej. In 1882, owing to the increasing population of Aden town, a further small tract of territory was acquired by purchase beyond the Khor Maksār creek, extending to just beyond the village of Imād on the north and to Shaikh Othmān on the north-west, about 10 miles from Bandar Tawayih.

Physical aspects.

The inhabited peninsula is an irregular oval, 15 miles in circumference, with a diameter of 3 to 5 miles, connected with the continent by a neck of land 1,350 yards broad but at one place nearly covered at high spring-tides. The causeway and aqueduct, however, are always above, although at certain seasons just above, water. Aden consists of a huge crater, walled round by precipices, the highest peak being 1,775 feet above the sea. Rugged spurs, with valleys between, radiate from the centre. A great gap in the circumference of the crater has been rent on its sea-face, opposite the fortified island of Sīrah, by some later volcanic disturbance. The town and part of the military cantonment lie within the crater, and consequently are surrounded on all sides by hills. Lavas, brown, grey, and dark green, compact, schistose, and spongy breccias, and tufas form the materials of this volcanic fortress; with occasional crystals of augite, sanidin, small seams of obsidian, chalcedony in the rock cavities, gypsum, and large quantities of pumice-stone, of which several thousand tons are exported yearly to Bombay. The scanty vegetation resembles that of Arabia Petraea, and includes only ninety-four species, the more arid forms of *Dipterygium glaucum*, *Capparideae*, *Risida amblyocarpa*, *Cassia pubescens*, *Acacia eburnea*, and *Euphorbiaceae* predominating.

The harbour, Bandar Tawayih, or Aden West Bay, more generally known as Aden Back Bay, lies between the two peninsulas of Jebel Shum Shum and Jebel Ihsān, extending 8 miles from east to west by 4 from north to south, and is divided into two bays by a spit of land running off half a mile to the southward of the small island of Aliyah. The depth of water in the western bay is from 3 to 4 fathoms; across the entrance, 4½ to 5 fathoms, with 10 to 12 fathoms 2 miles outside. The bottom is sand and mud. There are several islands in the inner bay; the principal, Jazīrah Sawayih or Slave Island, is 300 feet high, and is almost joined to the mainland at low water. Large vessels lie off Steamer Point.

The Peninsular and Oriental Navigation Company's steamers call weekly at the port to receive, tranship, or land passengers and mails. There are numerous lights and lightships at Aden and Perim. The chief are the Aden Cape Light at Ras Marshag, visible for 20 miles, and the High Light on Perim with a range of 22 miles. The Aden lightship is visible for 10 miles, and fires a gun whenever a vessel enters the harbour at night.

Climate and rainfall.

The average temperature of Aden is 87° in the shade, the mean monthly range being from 75° in January to 98° in June, with variations up to (and sometimes exceeding) 102°. The lulls between the monsoons in May and in September are specially oppressive. The mortality among the Europeans, although greatly increased by sick or dying men from the passengers and crews of ships, amounts to only 7·24 per thousand, and Aden ranks as a rather healthy station for troops; but it is a well-ascertained fact that long residence impairs the faculties and undermines the constitution of Europeans, and even natives of India suffer from the effects of too prolonged an abode in the settlement. The climate during the north-east monsoon, or from October to April, is cool and pleasant, particularly in November, December, and January. During the remainder of the year, hot sandy winds, known as *shamāl*, or 'north,' indicating the direction from which they come, prevail within the crater, but on the western or Steamer Point side the breezes coming directly off the sea are fairly cool. The rainfall may be said to vary from ¼ inch to 8½ inches, with an irregular average of about 3 inches. Since the restoration of the tanks commenced in 1856, they have only been filled six times, in May, 1866, May, 1870, and September, 1877, 1889, 1893, and 1897. The settlement is exceptionally free from infectious diseases and epidemics. The absence of vege-

tation, the dryness of the soil, and the purity of the drinking-water constitute efficient safeguards against many maladies common to tropical countries.

Aden formed part of Yemen under the ancient Himyarite kings. It has been identified with the Eden of Ezekiel xxvii. 23, whose merchants traded 'in all sorts, in blue clothes, and broidered work, in chests of rich apparel, bound with cords, and made of cedar.' Aden, the Ἀραβία εὐδαίμων of the *Periplus*, is mentioned as Ἀδάνη, one of the places where churches were erected by the Christian embassy sent forth by the emperor Constantius, A.D. 342. Its position rendered it an *entrepôt* of ancient commerce between the provinces of the Roman empire and the East. About 525 Yemen, with Aden, fell to the Abyssinians, who, at the request of the emperor Justin, sent an army to revenge the persecution of the Christians by the reigning Himyarite dynasty. In 575 the Abyssinians were ousted by the Persians. Anarchy and bloodshed followed. The rising Muhammadan power reached Aden ten years after the Hijra. It became subject successively to the Ummayid Khalīfs, the Abbāssids (749), and the Karāmite Khalīfs (905), until the period of Yemen independence under its own Imāms (932). Aden continued in the early centuries of Islām to be a place of flourishing commerce. It carried on a direct trade with India and China on the east, and with Egypt (and so indirectly with Europe) on the west. In 1038 Aden was captured by the chief of Lāhej, and remained under his successors till 1137. During the next three centuries it was frequently taken and retaken by the conflicting powers in the south of Arabia. About the year 1500 the Yemen Imām, then in possession, constructed the aqueduct of 9 miles from Bīr Mahait into Aden, the ruins of which exist to this day. In 1503 Aden was visited by Ludovico de Varthema. Ten years later it was attacked by the Portuguese under Albuquerque, who had been charged by King Emmanuel to effect its capture. His expedition left India on February 18, 1513, with twenty ships and 2,500 sailors, and reached Aden on Easter Eve. The assault was delivered on Easter Sunday. An outwork with thirty-nine guns fell to the Portuguese; but, after a four days' bloody siege, Albuquerque was repulsed with great slaughter, and had to content himself with burning the vessels in the harbour and cannonading the town. In 1516 the Mameluke Sultān of Egypt failed in a similar attack. Later in that year the fortress was offered to the Portuguese under Lopo Soares d'Albergaria; but the defences having been mean-

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while repaired by the native governor, it was not delivered up. About 1517 Selīm I, Sultān of Turkey, having overthrown the Mameluke power in Egypt, resolved to seize Aden as a harbour, whence all the Turkish expeditions against the Portuguese in the East, and towards India, might sail. This project was carried out in August, 1538, by an expedition sent forth by his son Sulaimān the Magnificent, under the admiral Rais Sulaimān. The Turkish sailors were conveyed on shore lying on beds as if sick; and the governor was invited on board the Turkish fleet, where he was treacherously seized and hanged. The Turks strengthened the place with 100 pieces of artillery and a garrison of 500 men. For a time Aden, with the whole coast of Arabia, remained under the Ottoman power. Before 1551 the townsmen had rebelled and handed the place over to the Portuguese, from whom, however, it was retaken in that year by Peri Pasha, the Capidan of Egypt, and still more strongly fortified. In 1609 Aden was visited by the East India Company's ship *Ascension*, the captain being well received, and then thrown into prison until the governor had got as much as he could out of the ship. Next year Sir Henry Middleton also visited Aden, and, one of his ships being left behind, a similar act of treachery was repeated. About 1614 Van den Broeck arrived on behalf of the Dutch East India Company, was, as usual, well received, but obtained a hint that he had better leave, and returned unsuccessful to India. In 1618, by the desire of Sir Thomas Roe, British ambassador to the Mughal emperor, permission was obtained to establish a factory at Mokha. In 1630 the Turks were compelled to evacuate Yemen, and Aden passed again to the native Imāms of that province. In 1708 the French visited the port, and in 1735 it was seized by the Abdāli Sultān of Lāhej. During the next seventy years it formed the subject of constant struggles among various Arabian claimants. In 1802 Sir Home Popham concluded a treaty of friendship and commerce with the chief; and in 1829 the Court of Directors thought of making it a coaling station, but abandoned the idea owing to the difficulty of procuring labour. Aden was attacked by the Tūrkchi Bilmās in 1833, and sacked by the Fadhlis in 1836. The chief soon afterwards committed an outrage on the passengers and crew of a British buggalow wrecked in the neighbourhood; and in January, 1838, Captain Haines, on behalf of the Government of Bombay, demanded restitution. It was arranged that the peninsula should be ceded for a consideration to the British. But various acts of treachery supervened; and it was captured

in January, 1839, by H.M. steamers *Volage*, 28 guns, and *Cruiser*, 10 guns, with 300 European and 400 Native troops under Major Baillie—the first accession of territory in the reign of Queen Victoria. Captain Haines thus described its condition when it passed into British hands :—

'The little village (formerly the great city) of Aden is now reduced to the most exigent condition of poverty and neglect. In the reign of Constantine this town possessed unrivalled celebrity for its impenetrable fortifications, its flourishing commerce, and the glorious haven it offered to vessels from all quarters of the globe. But how lamentable is the present contrast! With scarce a vestige of its former proud superiority, the traveller values it only for its capabilities, and regrets the barbarous cupidity of that government under whose injudicious management it has fallen so low.'—(*MS. Journal*, pp. 44, 49.)

A stipend of 541 German crowns was assigned to the chief during his good behaviour. But the Abdāli proved fickle, and in three attacks, the last in 1841, he was repelled with heavy loss. In 1844 he implored forgiveness, and his stipend was restored. In 1846 a fanatic, named Saiyid Ismail, preached a *jihād* among the neighbouring tribes, but was routed. Occasional outrages in the neighbourhood, such as atrocities on boats' crews and plunderings, have from time to time disturbed the peace; but each has been very promptly checked. The adjacent peninsula of Jebel Ihsān, Little Aden, was obtained by purchase in 1868; an advance of the Turkish troops on the Lāhej territory took place in 1872, but was withdrawn in consequence of representations made by the British Government to the Porte.

Aden under British rule.

Attached to the settlement of Aden are the islands of Perim, Sokotra, and Kuria Muria. PERIM is a volcanic island in the Straits of Bāb-el-Mandeb, 1½ miles from the Arabian and 11 miles from the African coast. It had been visited by Albuquerque in 1513, and was occupied by the British in 1799 during Napoleon's invasion of Egypt, as a precaution against the descent of the French army upon India, but subsequently abandoned. In 1857, with the introduction of the overland route, it was reoccupied, and a lighthouse built upon it to facilitate the navigation of the straits. In 1883 a company was formed, which obtained a concession on the western side of the island as a site for a coaling station, and a large number of vessels now call annually for the purpose of taking coal. The island of Sokotra, in the Arabian Sea, passed under the protection of the British Government in

virtue of a treaty concluded in April, 1886. The Kuria Muria islands were ceded by the Imām of Maskat in 1854. They are valuable only for the guano deposits found upon them.

A joint commission, representing the British and Turkish Governments, delimitated the boundary of the Aden Protectorate in 1903–4. This led to some disturbance with the frontier tribes, and a small military force was employed in protecting the commission.

Population. The area of Aden Peninsula is 21 square miles; of Little Aden, 15 square miles; of the subsequently acquired tract of Shaikh Othmān, 39 square miles; and of Perim, 5 square miles: total, 80 square miles. The inhabitants numbered 6,000 in 1839, exclusive of the troops; 15,000 in 1842; 19,289 in 1872; 34,860 in 1881; 44,079 in 1891; and 43,974 in 1901. The distribution is as follows:—

	Area in square miles.	Number of towns and villages.	Population, 1901.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Aden .	75	5	42,738	570	+ 0.01	7,752
Perim .	5	1	1,236	247	− 8.82	136
Total	80	6	43,974	549	− 0.24	7,888

The European residents and Christians number 3,969; Muhammadans, 33,581; Jews, 3,059. The Pārsīs (328), Jains (166), and Hindus (2,725) have most of the local trade in their hands.

At the Census of 1901 the population was largely returned as Arabs (19,468) and Shaikhs (3,180). The chief Arab tribes are described by Captain Hunter as follows: the Abdāli inhabit a district lying in a north-north-westerly direction from Aden, called Lāhej, about 33 miles long and 8 broad. Al Hautah, the capital, where the Sultān resides, is situated about 21 miles from the Barrier Gate. The population of this district is about 14,500. The Abdāli are the most civilized but least warlike of all the tribes in south-western Arabia. The Fadhli possess two large districts, with a sea-board of 100 miles, extending eastward from the boundary of the Abdāli. Shukra, their chief seaport, is situated 60 or 70 miles from Aden. They are proud, warlike, and independent, and have about 6,700 fighting men. The Akrabi inhabit a district the coast-line of which stretches from Bir Ahmad to Ras Amrān. This tribe has a high reputation for courage. The Arab chiefs in

the neighbourhood are nearly all stipendiaries of the British Government.

The language of the settlement is Arabic; but other Asiatic tongues, as Urdū, Persian, Gujarātī, Sindī, &c., as well as several European languages, are spoken.

The Somālis from the African coast and Arabs do the hard labour of the port. There are also a few Arab merchants of substance. Many of the Somālis and Arabs have no homes, but find their meals at the cook-shops, and sleep in the coffee-houses or in the open air. The increasing pressure of the civil population upon the military town and garrison led to arrangements being made to acquire a suitable site to locate the large number of natives who lead a hand-to-mouth existence; and by the purchase of the Shaikh Othmān tract, in February, 1882, the difficulty of want of room has been removed. The food of the whole population, civil and military, is imported, Aden producing not a blade of grain. Rice comes from Calcutta, Bombay, and Malabar; *jowār*, *bājra*, and maize are carried on camels from the interior. Coarse grass and the straw of *jowār* and *bājra* are brought for horses and camels from the Lāhej and Fadhli districts in the neighbourhood. The people have an untidy and makeshift air, which contrasts with the personal cleanliness of an Indian population. This arises partly from the scarcity of water, partly from the temporary nature of their residence and out-of-door life. They earn high wages in the various employments incident to a busy *entrepôt* and port of transhipment. Domestic servants receive Rs. 15 to Rs. 25 a month; grooms, Rs. 15 to Rs. 20; boatmen, messengers, &c., Rs. 15 to Rs. 20. These classes also get three gallons of water per day besides their wages. Porters and day-labourers earn daily from a rupee upwards, according to their industry. The cost of living is high.

As far as the settlement is concerned there are no products Economic. whatever, with the important exception of salt. This commodity is manufactured on a stretch of ground situated near Shaikh Othmān. The crops in the low country are *jowār* (red and white); sesamum, from which oil is manufactured; cotton to a small extent; madder for dyeing purposes; *wars* or bastard saffron; and a little indigo, from which the favourite Arab cloth is dyed. In the hills, wheat, madder, fruit, coffee, and a considerable quantity of wax and honey are obtained. The Amiri district supplies aloes, dragon's blood, wooden rafters, and *ghī*, while dragon's blood and aloes come from Sokotra.

When Captain Haines, then engaged in the survey of the Arabian coast, visited Aden in 1835, some of the reservoirs appear to have been still in a tolerably perfect state. Besides the tanks built high up on the hills, several large ones were traceable round the town. But the necessary steps not having been taken to preserve them from further destruction, they became filled with débris washed down from the hills by the rain. The people of the town carried away the stones for building purposes; and, with the exception of a very few which could not be easily destroyed or concealed, all trace of them was lost, save where a fragment of plaster, appearing above the ground, indicated the supposed position of a reservoir, believed to be ruined beyond the possibility of repair.

In 1856 the restoration of these magnificent public works was commenced, and thirteen have been completed, capable of holding 7,718,630 gallons of water. It is almost impossible to give such a description of these extraordinary walled excavations as would enable one who has not seen them to understand them thoroughly. Trees have now been planted in their vicinity, and gardens laid out, making the only green spot in the settlement. The Shum-shum (Sham-sham) hills, which form the wall of the crater, are nearly circular; on the western side the rainfall rushes precipitously to the sea, down a number of long narrow valleys unconnected with each other; on the interior or eastern side the hills are quite as abrupt, but the descent is broken by a large table-land occurring midway between the summit and the sea-level, which occupies about one-fourth of the entire superficies of Aden. This plateau is intersected by numerous ravines, nearly all of them converging into one valley, which thus receives a large proportion of the drainage of the peninsula. The steepness of the hills, the hardness of the rocks, and the scantiness of the soil upon them combine to prevent absorption; and thus a very moderate fall of rain suffices to send down the valley a stupendous torrent of water, which, before reaching the sea, not infrequently attains the proportions of a river. To collect and store this water, the reservoirs have been constructed. They are fantastic in shape. Some are formed by a dike built across the gorge of a valley; in others, the soil in front of a re-entering angle on the hill has been removed, and a salient angle or curve of masonry built in front of it; while every feature of the adjacent rocks has been taken advantage of and connected by small aqueducts, to ensure that no water be lost. The overflow of one tank has been conducted into the succeeding one, and thus a complete

chain has been formed. In 1857, when only a very small proportion of the whole had been repaired, more water was collected from a single fall of rain on October 23 than the whole of the wells yield during an entire year. It is manifest, however, that a large city could never have depended entirely on this precarious source of supply; and the sovereign of Yemen, Abdul Wahhāb, towards the close of the fifteenth century, constructed an aqueduct to convey the water of the Bir Mahait (Playfair says 'Bir Hameed') into Aden. The ruins of this magnificent public work exist to the present day.

The restoration of the tanks, including repairs, has cost about 5½ lakhs. Of late years it has been the practice to put the tanks up to auction for a definite period, the highest bidder trusting to a good fall of rain to recoup his outlay. The water collected used to be sold at R. 1 per 100 gallons, and, when the tanks are full, the annual revenue amounts to about Rs. 30,000. But when the rain fails and the tanks are exhausted, a skin containing 5 gallons of brackish water has at times sold for 8 annas.

(4) *Condensers.*—Shortly before the opening of the Suez Canal, the Government foresaw the necessity of obtaining a plentiful and unfailing supply of good water, and in 1867 several condensers, on the most approved principle, were ordered from England. A brisk trade in distilled water sprang up, and six condensers are now worked by the Government and private companies, capable of yielding 52,000 gallons a day, or a sufficient supply for 10,400 Europeans at 5 gallons per head. In 1903-4 condensed water was sold at Rs. 1-8-5 per 100 gallons. The cost of working the condensers in that year was Rs. 54,871.

Trade and commerce.

The trade of Aden has immensely developed under British rule. From 1839 to 1850 customs dues were levied as in India. In 1850 the Government of India declared Aden a free port, and thus attracted to it much of the valuable trade between Arabia and Africa, formerly monopolized by Mokha and Hodaida. Customs duties are levied on spirits, wines, &c., salt, and arms. A transhipment fee of Rs. 100 per chest is levied on all opium, other than of Indian growth, imported for transhipment or re-export. The value of imports and exports during the seven years preceding the opening of the port in 1850 averaged 18 lakhs; during the next seven years it averaged 60 lakhs, excluding inland traffic; in 1870 it rose to 174 lakhs, and in 1881-2 it reached 381 lakhs. For

the year 1903–4 the total value of the sea import trade, exclusive of treasure, was 467 lakhs, and the total value of the sea export trade was 375 lakhs. The inland trade is also considerable, its total value in 1903–4, exclusive of treasure, being 45 lakhs. The opening of the Suez Canal has been mainly responsible for this increase in the trade of Aden, which in 1903–4 amounted to 1,033 lakhs, by sea and land, exclusive of the value of goods transhipped and Government stores and treasure. The growing importance of the port may be inferred from the steamer traffic, which in thirty years has risen from 894 to 1,657 vessels. Of the 1,369 merchant steamers in 1903–4, 857 were British, 153 German, 136 French, 97 Austrian, 83 Italian, 19 Russian, and 17 Dutch. During the sixty-three years of British rule in Aden the population has multiplied nearly sevenfold, and the trade has risen from less than one lakh per annum. Aden now not only forms the chief centre of the Arabian trade with Africa, but is an *entrepôt* and place of transhipment for an ever-increasing European and Asiatic commerce. This comprises an extensive trade in coffee berries (the unhusking and cleaning of which form an important industry in Aden), skins, piece-goods, and grain.

Administration. Aden is subject politically to the Government of Bombay. The administration of the settlement is conducted by a Resident, who has four Assistants. The Resident is also Military Commandant, and is usually an officer selected from the Indian Army, as are also his Assistants. Three of these are stationed at Aden and one at Perim. The Resident has jurisdiction as a Judge of the Vice-Admiralty Court in matters connected with the slave trade; his court is also a Colonial Court of Admiralty. The laws in force in the settlement are, generally speaking, those in force in the Bombay Presidency, supplemented on certain points by special regulations drawn up to suit local conditions.

Revenue and finance. The total revenue receipts of the Aden treasury in 1903–4 under all heads—imperial, local, and municipal—amounted to 80 lakhs, compared with 18 lakhs in 1881 and 38 lakhs in 1891. The chief items are excise (one lakh), 'excluded' funds, such as the Port Trust and Aden Settlement funds (6½ lakhs), municipal funds (2 lakhs), post office (6½ lakhs), and local supply bills (50½ lakhs). The income of the cantonment fund in 1903–4 was Rs. 9,730, and the expenditure the same.

Land tenures. Land is not sold in Aden. Sites of buildings and gardens are granted in perpetuity, and sites for stacking coal or salt, for beaching boats, for slips, and for workshops, &c., are given

on leases for a term of ninety-nine years on payment of quit-rent, as follows:—

In the peninsula:—	
On building sites . .	6 pies per sq. yard per annum.
On land granted on leases .	2 pies per sq. yard per annum.
In Shaikh Othmān:—	
On building sites . .	2 pies per sq. yard per annum.
On garden land . .	Rs. 6 per acre per annum.
Sites granted for manufacture of salt	8 annas per ton on the quantity manufactured and exported.

Funds for the maintenance of sanitary and conservancy arrangements within the settlement are raised by the levy of octroi, house tax, and other imposts. In 1903–4 the sum thus levied was about 2 lakhs. In place of a former municipal committee, an executive committee has been established under Regulation VII of 1904 for the management of local affairs, subject to the control of the Resident. This committee was credited with the balance of the municipal fund, now called the Aden Settlement fund. Executive committee.

Up to April 1, 1889, the management of the port was under the direct control of the Port Officer, who received orders, when necessary, from the Resident. In that year, however, a Board of Trustees was formed under the provisions of Bombay Act V of 1888, which has since controlled the management of the harbour. The principal task of the Port Trust has been to make arrangements for the deepening of the harbour, so as to allow vessels of all sizes to enter and leave the inner harbour at all states of the tide. For this purpose a large and powerful dredger was purchased in 1890. Since that date the progress made with the dredging of the harbour has been satisfactory. In order to provide the necessary funds, the levy of tolls and wharfage fees on goods landed or shipped has been sanctioned by the Board. In 1903–4 the receipts thus derived exceeded 4½ lakhs and the disbursements were 3½ lakhs. Port Trust.

The garrison of Aden on March 31, 1904, comprised three companies of garrison artillery, two battalions of British infantry, a company of sappers and miners, and two Native regiments. Exclusive of troops at Perim and in the interior, the garrison comprised 1,178 British and 1,015 Native troops. Army.

The police number 216, the cost being Rs. 59,571 in 1903–4, and the proportion one policeman to 204 of the population. The cost of the harbour police, numbering 42, was Rs. 13,515. The daily average number of prisoners in jail in 1903–4 was 31. Police and jails.

Education. In the settlement of Aden 18 per cent. of the total population (24·4 males and 3·2 females) were able to read and write in 1901. In 1881 Aden had only 4 Government schools with 427 pupils. In 1891 the number had increased to 31, and in 1901 to 37 schools with 1,503 pupils. In 1903–4 there were 45 schools with 2,172 pupils, including 295 girls. Of these institutions, 5 are English, 2 Gujarātī, 32 Urdū, and 3 Arabic. The total expenditure on education in 1903–4 was Rs. 6,352. The Good Shepherd Convent, under a Mother Superior and a Roman Catholic clergyman, has established schools, both in Aden and at Steamer Point.

Medical. Aden has two hospitals and three dispensaries. In 1903–4 the number of patients treated in these institutions was 34,982, of whom 2,186 were in-patients, and 1,962 operations were performed. The total expenditure was Rs. 53,000. Separate military hospitals are maintained for the garrison. Perim has two dispensaries, one military and one private, in which 1,035 patients were treated in 1903–4. Of these, 219 were in-patients. The average number of persons successfully vaccinated in Aden is 54 per 1,000.

Perim.—Island in the narrowest part of the Straits of Bāb-el-Mandeb, situated in 12° 40′ N. and 43° 23′ E., distant from the Arabian coast nearly 1½ miles, and from the African coast 11 miles; greatest length, 3½ miles; average width, about 1¼ miles; circumference (following the sinuosities of the coast-line), probably more than 30 miles; area, 5 square miles. The island is administered along with Aden; and the following account of it is taken from Captain F. M. Hunter's *Statistical Account of Aden* (1877), pp. 171–2:—

'Perim is called by the author of the *Periplus* the island of Diodorus, and is known among the Arabs as Mayoon. The formation is purely volcanic, and consists of long, low, and gradually sloping ranges of hills, surrounding a capacious harbour, about a mile and a half in length, half a mile in breadth, and with a varying depth of from 4 to 6 fathoms in the best anchorages. The hills were formerly intersected by bays and indentations, which in the course of time have been filled up with coral and sand, and are now low plains, scantily covered with salsola, sea-lavender, wild mignonette, and other plants which delight in a soft sandy soil. These plains occupy about one-fourth of the island, and occur principally on the north side. The rocks, which are all igneous, are nowhere exposed, save where they dip perpendicularly into the sea; they are covered with a layer of volcanic mud of from two to six feet in depth, above which is another layer of loose boulders, or masses of black vesicular lava, in some places so thickly set

as to resemble a rude pavement. The highest point of the island is 245 feet above the level of the sea. All endeavours to find water have failed, and but a scanty supply is procurable from the adjacent coasts. Water-tanks were constructed, which used to be chiefly supplied from Aden, and it was proposed to erect reservoirs to collect the rain; but, as at Aden, a condensing apparatus was found more suitable.

'Perim has never been permanently occupied by any nation save the British. Albuquerque landed upon it in 1513 on his return from the Red Sea, and, having erected a high cross on an eminence, called the island Vera Cruz. It was again occupied for a short time by the pirates who frequented the mouth of the Red Sea, and who amassed considerable booty by plundering the native vessels engaged in the Indian trade. They formed a project of settling here and erecting strong fortifications; but having with much labour dug through the solid rock to a depth of fifteen fathoms in a fruitless search for water, they abandoned their design, and removed to Mary's Island, on the east side of Madagascar.

'In 1799 Perim was taken possession of by the East India Company; and a force under Lieutenant-Colonel Murray was sent from Bombay to garrison it, with the view of preventing the French troops, then engaged in the occupation of Egypt, from proceeding to India to effect a junction with Tipū Sultān. But it was deemed untenable as a military position, and the Straits were too broad to be commanded by any batteries on the shore; the troops were accordingly withdrawn.

'In consequence of increasing steam navigation in the Red Sea, the attention of the Indian Government was directed to the necessity of a lighthouse to facilitate the navigation of the Straits. Perim was consequently reoccupied in the beginning of 1857. The lighthouse was completed in 1861, and quarters were also built for a detachment of native infantry, 50 strong, who garrison the island. The detachment is relieved every two months when practicable.'

The garrison is still maintained on the island, which has a population (1901) of 1,236, and is provided with a police force of 10 men. The island contains a coal dépôt, a condenser producing annually 170,000 gallons of water, and two lighthouses. An Assistant Resident with first-class magisterial powers is stationed here.

[J. S. King, *Description and History of the British Outpost of Perim* (1887).]

PORTUGUESE POSSESSIONS

Portuguese Possessions.—These consist of the territories of Goa, Damān, and Diu, lying wholly within the limits of the Bombay Presidency, and governed by a Governor-General of Portuguese India, resident at Goa city. They cover a total area of 1,470 square miles and contain a population (1900) of 531,798, distributed as follows:—

	Area in square miles.	Population.
Goa	1,301	475,513
Damān	149	41,671
Diu	20	14,614

Their total revenue in 1903–4 was 23 lakhs. A description and history of these possessions is given under the articles GOA SETTLEMENT, DAMĀN, and DIU.

Boundaries, configuration, and hill and river systems.

Goa Settlement.—Portuguese Settlement on the western coast of India, within the limits of the Bombay Presidency, lying between 14° 53′ and 15° 48′ N. and 73° 45′ and 74° 24′ E., with an area of 3,370 square kilometres or 1,301 square miles. It is bounded on the north by the Terekhol or Araundem river, separating it from the Sāvantvādi State; on the east by the range of the Western Ghāts, separating it from the Districts of Belgaum and North Kanara; on the south by North Kanara; and on the west by the Arabian Sea. Extreme length from north to south, 62 miles; greatest breadth from east to west, 40 miles. Goa forms a compact block of foreign territory on the coast of the Bombay Presidency, surrounded by British Districts. It comprises the island of Goa or Ilhas, acquired in 1510, and the provinces of Salsette and Bārdez, acquired in 1543. These three form the Velhas Conquistas or 'old conquests.' The districts of Pernem, Bicholim or Batagram, Satāri, Ponda or Antruz, Zambaulim or Panchmal, and Canacona or Advota are called the Novas Conquistas or 'new conquests,' and were acquired in the latter half of the eighteenth century. The island of ANJIDIV, situated opposite the port of Kārwār in the British District of North Kanara,

forms administratively a portion of the province of Goa. It was acquired by the Portuguese in 1505.

Goa is a hilly country, especially that portion which was most recently acquired, known as the Novas Conquistas. Its distinguishing feature is the Western Ghāts, or Sahyādri mountains, which, after skirting a considerable portion of the north-eastern and south-eastern boundaries, branch off westwards across the territory into numerous spurs and ridges. Of the isolated peaks with which this range of mountains is studded, the most conspicuous are: on the north, Sonsāgar, 3,827 feet above sea-level; Catlanchimauli, 3,633 feet; Vaguerim, 3,500 feet; Morlemchogor, 3,400 feet, all in the Satāri *mahāl* or district; on the east and west, Sidnato at Ponda, Chandarnate at Chandrowadi, Consid at Astagrār, and Dudsagar at Embarbācem.

The territory is intersected by numerous rivers, which are generally navigable. The eight principal rivers are as follows. The Terekhol or Araundem, so called from the fortress of that name guarding its estuary, has its source in the Western Ghāts in Sāvantvādi State, flows south-west for 14½ miles, and, after forming the northern boundary of the district of Pernem, and also of the territory of Goa, discharges its waters into the Arabian Sea. The Chāporā or Colvalle, 18 miles long, rises at the Rām *ghāt*, and, after separating the districts of Bārdez, Bicholim, and Sanquelim from Pernem, takes a zigzag direction to the south-west through the villages of Salem, Revora, and Colvalle, and empties itself into the sea close to the village of Chāpora. The Bāga, only one mile long, rises in Bārdez, and passes a redoubt of the same name. The Sinquerim, 3½ miles long, also rises in Bārdez close to the village of Pilerne, and, after describing almost a right angle, westwards and southwards, and forming the peninsula of Aguada, falls into the bay of the same name. The Mandāvi, 38½ miles in length, is the most important stream in the territory, both the ancient and modern metropolis being situated on its banks. It rises at the Parvar *ghāt* in the district of Satāri, runs first north-west of Ponda, and then south-west of Bicholim and Bārdez, and, after forming several islands and passing Panjim or New Goa, discharges its waters into the Bay of Aguada; its principal offshoots pass the villages of Mapuça, Tivim, and Assonora, watering the districts of Bicholim, Sanquelim, and Zambaulim, and are locally known by those names. The Juāri, 39 miles in length, rises at the foot of the Dighy *ghāt* in the district of Embarbācem, runs northwards, separating Salsette from

Ponda, and falls into the Bay of Marmagao; like the Mandāvi, it has numerous offshoots, one of which joins the former river between Marcaim and São Lourenço, after forming the island of Tissuadi. The Sāl, 15 miles long, runs close to the town of Margao, and discharges itself into the sea near the fort of Betul. The Talpona, 7 miles long, rises at the Amba *ghāt* in the district of Astragār, and, running westwards through the district of Canacona, falls into the sea near the small fort of Talpona. The boats by which these rivers are navigated are called *tonas*, and the ferries across them are designated *passagens*.

The territory of Goa possesses a fine harbour, formed by the promontories of Bārdez and Salsette. Half-way between these extremities projects the *cabo* ('cape') from the island of Goa, dividing the harbour into two anchorages, known as Aguada and Marmagao. Both are capable of accommodating safely the largest shipping from September to May. Aguada is virtually closed to navigation during the south-west monsoon, owing to the high winds and sea, and the formation of sandbanks in the estuary of the Mandāvi at that period; but Marmagao is accessible at all times. A consequence of the intersection of numerous rivers is the formation of many islands, of which the larger ones number 18.

Geology. Laterite is the stone most abundant throughout the territory of Goa. The geological resources have not yet been scientifically explored.

Rainfall. The climate is hot, and the rainfall for the ten years ending 1902, as registered by the Meteorological department, averaged 90 inches. The prevailing diseases are intermittent and remittent fevers, diarrhoea, and dysentery.

History. Certain inscriptions corroborate the evidence of the Purānas that Goa was in ancient times known under the various names of Gomanchala, Gomant, Goapuri, Gopakapur, and Gopakapatanua. The accounts handed down from antiquity teem with legendary tales, on which little reliance can be placed. In the Sahyādri Khanda of the *Skanda Purāna* it is recorded that at an early period the Aryans settled in Goa, having been brought by Parasu Rāma from Trihotrapur or Mithilā, the modern Tirhūt. Some of the inscriptions referred to above show that Goa afterwards passed under the sway of the Kadambas of Banavāsi, whose first king, Trilochana Kadamba, is supposed to have flourished in about A.D. 119–20. This dynasty continued to rule until 1312, when Goa fell for the first time into the hands of the Muhammadans, under Malik

Kāfūr. They were, however, compelled to evacuate it in 1370, having been defeated by Vidyāranya Mādhav, the prime minister of Harihara of Vijayanagar, under whose successors Goa remained for about a hundred years. In 1470 it was conquered by Mahmūd Gawan, the general of Muhammad II, the thirteenth Bahmani Sultān of the Deccan, and incorporated into the dominions of that sovereign. Goa became subject to the Adil Shāhi dynasty reigning at Bijāpur about the time that Vasco da Gama landed at Calicut in 1498. This dynasty retained possession until February 17, 1510, when Goa was captured by Affonso de Albuquerque.

The Portuguese fleet, consisting of 20 sail of the line, with a few small vessels and 1,200 fighting men, hove in sight of the harbour. A holy mendicant or *jogi* had lately foretold its conquest by a foreign people from a distant land, and the disheartened citizens rendered up the town to the strangers. Eight leading men presented the keys of the gates to Albuquerque on their knees, together with a large banner which was unfurled only on state occasions. Mounted on a richly caparisoned steed, Albuquerque entered the city in a triumphal procession, drums beating, trumpets sounding, with the Portuguese banners carried by the flower of the Lisbon nobility and clergy at the head, amid the acclamations of an immense multitude, who showered upon the conqueror filigree flowers of silver and gold. Albuquerque behaved well to the inhabitants, but was shortly afterwards expelled by the Bijāpur ruler. Yūsuf Adil Shāh, Sultān of Bijāpur, marched against the place with a considerable force, and, after several sanguinary contests, retook it from the Portuguese on August 15 of the same year. Reinforced, however, by the large armament which opportunely arrived from Portugal about this time, Albuquerque hastened back to Goa with his fleet, and conquered it a second time on November 25. With 28 ships, carrying 1,700 men, he forced his way into the town after a bloody assault, in which 2,000 Musalmāns fell. For three days the miserable citizens were given over as a prey to every atrocity. The fifth part of the plunder, reserved for the Portuguese crown, amounted to two lakhs of rupees. Albuquerque promptly occupied himself in fortifying the place, embellishing the city, and establishing the Portuguese rule on a firm basis.

From this time Goa rapidly rose in importance, and eventually became the metropolis of the Portuguese empire in the East, which is said to have comprehended an area of about 4,000 square leagues. In 1543, during the governor-

ship of Martim Affonso, who came to India together with the celebrated St. Francis Xavier, the two important districts or *mahāls* of Bārdez and Salsette were ceded to the Portuguese by Ibrāhīm Adil Shāh, who, however, not long afterwards, attempted to regain them, but was foiled in his endeavours by the intrepidity of Dom João de Castro. To provide against any future invasion on the part of the Muhammadans, the eastern part of the island of Goa was protected by means of a long wall. In 1570 Alī Adil Shāh besieged the city with an army of 100,000 men; but it was so bravely defended by the little garrison under the Viceroy, Dom Luiz de Athaide, that the Muhammadan army, greatly thinned in numbers, retreated precipitately after a tedious siege of ten months' duration. About this period the Portuguese were alarmed by the appearance on the coast of India of a new enemy. The Dutch, having shaken off the Spanish yoke, assumed a warlike attitude towards the Portuguese, owing to the intimate connexion between Portugal and Spain.

The subsequent history of the town has been one of luxury, ostentation, and decay. After enduring a siege by the Sultān of Bijāpur, and suffering from a terrible epidemic, Goa reached the summit of its prosperity at the end of the sixteenth century. In the early years of the English Company, Goa Dourada, or 'golden Goa,' seemed a place of fabulous wealth to the plain merchants who were destined to be the founders of British India. 'Whoever hath seen Goa, need not see Lisbon,' said a proverb of that day. Indeed, if the accounts of travellers are to be trusted, Goa presented a scene of military, ecclesiastical, and commercial magnificence which has had no parallel in the British capitals of India. The descriptions that have been recorded of Calcutta in the eighteenth and during the first quarter of the nineteenth century leave behind them a feeling of insignificance compared with the accounts of Goa written nearly three hundred years ago. To find a parallel, we must go to the travellers' tales regarding Agra and Delhi during the zenith of the Mughal prosperity. The brilliant pomp and picturesque display of Goa was due to the fact that it was not only a flourishing harbour, but also the centre of a great military and ecclesiastical power. The Portuguese based their dominion in India on conquest by the sword. They laboured to consolidate it by a proselytizing organization, which throws the missionary efforts of every other European power in India into the shade. The result has proved how rotten was this basis, and how feebly cemented was the super-

structure reared upon it. But during the greatness of Goa it had all the splendours which the Church and a powerful military court could cast around it.

After the genius of Albuquerque and the energies of the early viceroys had spent themselves, their armaments constituted a vast idle population in the capital. The work of conquest was over, and it left behind it a gay and wealthy society of conquerors who had nothing to do. Every Portuguese in India, says a traveller, set up as a 'Fidalgo' (*sic*). These gentlemen had to be amused. There were no hotels or inns in the city, but many boarding-houses and gambling saloons. The latter, writes a voyager in the seventeenth century, were sumptuously furnished, and paid a heavy tax to the Government. People of all classes frequented them, and entertainments were provided for the lookers-on by jugglers, dancing-girls, musicians, wrestlers, and native actors or buffoons. 'Those who were inordinately fond of gambling stayed there sometimes for days together, and were provided with board and lodging.' Such gambling-houses were not places for respectable women, and while the male society thronged their saloons, the Portuguese ladies were rigorously shut up at home. The family income was derived from the labour of slaves; and as no 'Fidalgo' could follow a trade or calling without disgrace, so neither could his wife busy herself in domestic affairs without losing her social importance. The society of Goa, therefore, divided itself into two idle populations—an idle population of men in the streets and gambling-houses, and an idle population of women in the seclusion of their own homes. This was one of the first results of the intensely military spirit, with its contempt for peaceful forms of industry, on which rested the Portuguese power in India. The ladies of Goa soon obtained an unenviable notoriety in books of travel. Excluded from male society, they spent their time in indolence, quarrelling, and frivolous pursuits. A European *zanāna* life grew up, and brought with it some very ugly consequences. A lady valued herself in her female coterie upon the number and the daring of her intrigues. Almost every traveller who visited Goa during its prime tells the same curious story regarding the rashness with which the Portuguese matrons pursued their amours. Both Pyrard and Linschoten relate, in nearly the same words, how the ladies of Goa were wont to stupefy their husbands with *dhatura*, and then admit their lovers. The perils of such interviews became almost necessary to give a zest

to their profligacy, and the Goanese became a byword as the type of an idle, a haughty, and a corrupt society. Strangers are inclined to laugh at Englishmen for adhering in India to the British costumes devised for a more temperate zone. There can be no doubt that the Dutch in Java have adapted their clothing much better to the climate than the English in Calcutta. But the very rigidity with which English society in India insists upon matters of dress is not without its value. It forms a perpetual check upon the tendency to fall into the slipshod habits of Oriental domestic life. In Goa these habits were carried to an extreme length. At home, both ladies and gentlemen dressed very much like the natives, except for the large rosaries which they wore round their necks. While untidy and careless in their dress at home, they made an ostentatious display when they stirred abroad. When a gentleman rode out, he was attended by a throng of slaves in gay and fanciful liveries, some holding large umbrellas, others bearing richly inlaid arms; while the horse itself was loaded with gold and silver trappings, the reins studded with precious stones, with jingling silver bells attached, and the stirrups wrought into artistic shapes in gilt silver. The poor followed the example of the rich, and resorted to amusing makeshifts to maintain an air of dignity and grandeur. The gentlemen who lived together in a boarding-house had a few suits of silk clothes between them in common. These they used by turns when they went out, and hired a man to hold an umbrella over them as they strutted through the streets.

Holland, having thrown off the Spanish yoke, began to assert herself in the East. While the British East India Company was struggling into existence during the last years of Elizabeth, the Dutch was preparing to dispute with the Portuguese for the supremacy in the Indian Ocean. In 1603 they blockaded Goa. The attempt proved abortive; but it left behind it a struggle between the two nations which, during the next seventy years, shattered and dismembered the Portuguese power in India. One by one the Portuguese possessions fell into the hands of the Dutch; their fleets were captured, or driven within the shelter of their forts, and their commerce was swept from the seas. Goa suffered not only from these disasters, but also from a return of the fever which had afflicted the city in the preceding century. It broke out again in 1635 and raged for several years. Towards the end of this visitation the Dutch once more blockaded Goa in 1639, but were again compelled to withdraw.

A period of pride and poverty followed, during which the splendour of the previous century was replaced by shabby devices to conceal the decay that had blighted the Portuguese power. In 1648 Tavernier admired the architectural grandeur of Goa, but was struck with the indigence of several Portuguese families whom he had seen in affluence and prosperity during his first visit. He says that many who had six years previously enjoyed an ample income were now reduced to the necessity of secretly begging alms.

'Yet they did not put aside their vanity. The ladies were particularly observed going in palanquins to seek charitable relief, attended by servants who conveyed their messages to the persons whose assistance they implored.'

'The city,' says Thevenot in 1666, 'is great and full of beautiful churches and convents, and well adorned with palaces. There were few nations in the world so rich as the Portuguese in India; but their vanity is the cause of their ruin.'

In 1675 Dr. Fryer described Goa as 'Rome in India':—

'looks well at a distance—stands upon seven hills; everywhere colleges, churches, and glorious structures; but many houses disgracing it with their ruins.'

The Portuguese, indeed, were becoming unable to hold their capital even against the native banditti. In 1683 it narrowly escaped falling into the hands of Sambhājī at the head of his roving Marāthās, who plundered up to the very gates of the city. All hopes of resistance were abandoned, when a powerful Mughal force suddenly made its appearance from the Ghāts, and compelled the Marāthās to come to terms. This unexpected deliverance was ascribed to the miraculous interposition of St. Francis Xavier. Subsequently the Bhonslas from the State of Sāvantvādi invaded Goa territory; but though at the outset they obtained partial successes, they were eventually defeated by the Portuguese, who conquered from them the islands of Corjuem and Ponelem, and destroyed their fortress at Bicholim. To defend the place against future inroads, the Viceroy, Vasco Fernandes Cesar de Menezes (1712–7), built a fortress on the frontiers of Bārdez, and another at Chāpora. During the administration of the Count of Sandomil (1732–41), the Portuguese became once more involved in a war with the Marāthās and lost some of their most important possessions towards the north of Goa. In 1741 the Marāthās invaded the peninsulas of Bārdez and Salsette, and threatened the city of Goa itself. At the same time the Bhonslas of Sāvantvādi

availed themselves of the opportunity to overrun the settlement. At that critical period a new Viceroy arrived at Goa, the Marquis of Louriçal, bringing with him from Europe a reinforcement of 12,000 men. With this army he encountered and defeated the Marāthās at Bārdez with great slaughter, captured the celebrated fortress of Ponda and other minor forts, and compelled them to retire from Goa. He then marched against the Bhonslas, and forced them to sue for peace, making their chief, Khem Sāvant, a tributary of the Portuguese. Shortly afterwards, however, the Bhonslas renewed hostilities, but were defeated by the Marquis of Castello Novo, who conquered Alorna (whence his later title), Tiracol, Neutim, Rarim, and Sanquelim or Satāri.

In 1750 the Marāthās attacked the fortress of Neutim, which they closely invested both by sea and land. The Viceroy, the Marquis of Tavora, hastened to the relief of the place with all his available forces, and compelled the enemy to raise the siege, after which he turned his arms against the king of Sonda, and captured the fortress of Piro (Sadāsivgarh). His successor, the Count of Alva, prosecuted successfully for a time the war against the Marāthās, but eventually lost Rarim and Neutim, and was killed at the siege of one of the fortresses which had fallen into the hands of the enemy. About this period the Court of Lisbon sent peremptory orders to the Viceroy, the Count of Ega, to restore the fortresses of Piro and Ximpem to the king of Sonda, and Bicholim, Sanquelim, and Alorna to Khem Sāvant III. Subsequently, however, the former allowed the Portuguese to possess themselves of Ponda, with the adjacent territory of Zambaulim, Cabo de Rāma, and Canacona, during the time that his dominions were invaded by Haidar Alī. After some years of repose, Khem Sāvant again attempted to disturb the Portuguese; but, being defeated, he had to surrender to them Bicholim, Sanquelim or Satāri, Alorna, and Pernem.

The decay of the capital had become so notorious that the Portuguese Government in Europe determined to rebuild it at a great cost. After a century of fruitless efforts and foolish expenditure, Old Goa still lay in ruins, and the remnants of the population drew themselves together at Panjim or New Goa, at the mouth of the river. The changes in the river itself had contributed to render Old Goa still more unhealthy than before, and to make the navigation of its channels dangerous even for the comparatively small class of ships which the Portuguese employed. During the eighteenth cen-

tury the decayed settlement, instead of being a centre of military pomp and courtly display, had become a burden on the Home Government, and cost Portugal a considerable sum of money annually. It required a force of 2,000 European soldiers to protect it from the Marāthās, the privates receiving a miserable subsistence of rice and fish, and the captains drawing a salary of Rs. 6 a month. Such commerce as survived was in the hands of the Jesuits. This fraternity still preserved the traditions, and something of the energy, of the proselytizing era. Alexander Hamilton, early in the eighteenth century, declared that he counted from a neighbouring hill nearly eighty churches and convents. He gives the number of Roman Catholic priests at 30,000 for the city and settlement. The native merchants had been driven away by oppressions and insults; and during the first half of the last century the Jesuits monopolized the remnants of the trade which still clung to the capital. In 1739, when the territory was overrun by the Marāthās, the nuns and monks had streamed forth in panic to the refuge of Marmagao. Nevertheless, high offices and military commands were still lavished among the poverty-stricken remnants of the Portuguese in India. All the talk at Goa was about fine titles. 'A post which would be filled by a small tradesman everywhere else needed a general.'

From 1794 to 1815 the Government of Goa and other Portuguese settlements in India received little attention from the Court of Lisbon, owing to various causes, the chief of which was the invasion of the Iberian Peninsula by the French. To protect Goa against any contingency, an English auxiliary force garrisoned the two fortresses commanding the port until the general peace in Europe after the battle of Waterloo. In 1817 the Viceroy, the Count of Rio Pardo, repelled the inroads of the predatory forces from Sāvantvādi State, capturing the fortresses of Uspa and Rarim. This Governor was, however, deposed in consequence of a revolution which took place in Goa in 1821. In 1835 a native of the place, named Bernardo Peres da Silva, was appointed Governor and Prefect of the Portuguese State of India by Dona Maria II, in reward for his adherence to the House of Braganza during the usurpation of Dom Miguel. But his reforms in Goa during the seventeen days of his government ended in an *émeute* and his flight to Bombay.

For about sixteen years after this event Goa was undisturbed by either external foes or internal dissensions, except for a brief military revolt, which resulted in the deposition of the Governor,

Lopez de Lima. During the administration of Pestana, in 1844, the disturbances in Sāvantvādi, and the shelter afforded at Goa to the rioters who had fled thither, threatened for a time to bring about a rupture with the British Government of Bombay. In 1852 the Rānīs of Satāri, headed by Dipājī, revolted. In 1871 a rebellion broke out among the native army at Goa, in consequence of the Portuguese authorities making a stand against its exorbitant demands. To suppress this insurrection the Court of Lisbon dispatched a reinforcement, accompanied by the king's own brother, Dom Augusto. On the restoration of peace the native regiments that had revolted were disbanded. The former army has not been reorganized, as native regiments could only be dangerous to the handful of European troops, and the peace maintained throughout India by the British supremacy renders them unnecessary for any practical purposes. In 1895, in consequence of the Government failing to comply with the demands of some Goa troops, who were being dispatched to Mozambique to quell the revolted Kaffirs, a mutiny broke out among the infantry. The Rānīs of Satāri joined the mutineers, and peace was not restored until the arrival of an expedition from Lisbon under the command of His Highness the Infante, Dom Affonso Henriques. A general amnesty was finally granted in 1897. In 1901 the Rānīs again broke out, the revolt commencing with the murder of an officer at Valpoy in Satāri on November 6. The murderers and many of the leading Rānīs were secured and punished, the Rānīs being transported to Timor with any members of their families who were willing to share their exile.

Population.

The population in 1800 of Goa proper, i.e. the Velhas without the Novas Conquistas, was 178,478. The whole population of the Velhas and Novas Conquistas, according to the Census of 1851, was 363,788, giving a density of 343 persons per square mile. The population of the territory of Goa in 1881 was 445,449, which had increased to 475,513, or by 6 per cent., in the twenty years ending 1900. The number of towns and villages, and population of the districts, in 1900, are given in the tables on p. 573.

The towns in the territory of Goa are Nova Goa or Panjim (*see* Goa City), with a population of 9,325; Margao, population 12,126; and Māpuça, population 10,733.

The distribution by religion is: Christians, 262,648; Hindus, 200,144; Musalmāns, 8,431. In the Velhas Conquistas, Christians form 91 per cent. of the population; in the Novas Conquistas, the Hindus are about equally numerous. The

Christians of Goa still very largely adhere to caste distinctions, claiming to be Brāhmans, Charados, and low castes, which do not intermarry. The Hindus are largely Marāthā, and do not differ from those of the adjacent Konkan Districts of Bombay.

Districts.	Towns.	Villages.	Population.		
			Males.	Females.	Total.
Old Conquests:					
Ilhas . . .	1	35	27,522	27,018	54,540
Salsette . . .	1	60	52,756	60,305	113,061
Bārdez . . .	1	39	45,247	60,090	105,337
New Conquests:					
Pernem . . .	..	27	18,559	19,455	38,014
Sanquelim . .	..	30	15,513	15,597	31,110
Satāri . . .	..	85	10,285	9,336	19,621
Ponda . . .	..	28	22,788	22,664	45,452
Sanguem. . .	..	51	13,203	12,915	26,118
Quepem . . .	..	44	10,848	10,538	21,386
Canacona . .	..	7	10,648	10,177	20,825
Island of Anjidiv . .	..	1	24	25	49
Total	3	407	227,393	248,120	475,513

All classes of the people, except Europeans, use the Konkanī dialect of Marāthī, with some admixture of Portuguese words. But the official language is Portuguese, which is commonly spoken in the capital and the principal towns, as well as by all educated persons.

Districts.	Details of population (so far as available).							
	Europeans and Americans.	Africans and others.	Natives of India.	Age.		Civil condition.		
				Under 12 years.	Above 12 years.	Unmarried.	Married.	Widowers and widows.
Old Conquests:								
Ilhas . .	182	74	54,264	14,751	39,788	26,986	21,478	6,046
Salsette . .	14	26	113,019	32,693	80,352	59,867	40,026	13,089
Bārdez . .	16	65	105,230	29,765	75,569	50,113	39,917	15,278
New Conquests:								
Pernem . .	1	..	38,013	12,480	25,534	16,040	17,449	4,515
Sanquelim .	4	7	31,099	9,840	21,269	13,388	13,702	3,978
Satāri . .	3	4	19,618	6,342	13,277	8,016	8,875	2,709
Ponda . .	8	4	45,440	14,044	31,403	20,237	19,572	5,635
Sanguem . .	4	2	26,110	7,762	18,336	11,355	10,858	3,893
Quepem . .	3	1	21,382	6,666	14,719	10,040	8,576	2,770
Canacona . .	..	..	20,825	6,214	14,599	9,637	8,362	2,824
Island of Anjidiv .	1	..	48	15	34	26	14	9
Total	236	183	475,048	140,572	334,880	225,705	188,829	60,746

Nearly all the Christians profess the Roman Catholic religion and are subject in spiritual matters to an Archbishop, who has the titles of Primate of the East and Patriarch of the East Indies, and exercises ecclesiastical jurisdiction also over a great portion of British India. His nomination rests with

the King of Portugal, subject to confirmation by the Pope. The Christians of Damān and Diu are subject to a bishop, who bears the titles of Bishop of Damān and Archbishop of Cranganore. There are numerous Christian churches in Goa, mostly built by the Jesuits and the Franciscans prior to the extinction of the religious orders in Portuguese territory. The chief of these is the cathedral or metropolitan church, called the Sé Primacial e Patriarchal de Goa. The religious orders have been abolished in Portuguese India, and the churches are under the charge of secular priests, all of whom are natives of Goa. The Catholics of Goa are very regular in the fulfilment of religious duties, and celebrate the chief festivals sanctioned by the Catholic Church with much devotion and pomp. Hindus and Muhammadans now enjoy perfect liberty in religious matters, and have their own places of worship. The chief Hindu temples are those of Mangesh, Mālshā, Sāntādurga, Kapleshwār, Nāgesh, and Ramnāth, all of which are situated in the Novas Conquistas. In the early days of Portuguese rule the observance of Hindu usages and the worship of Hindu gods in public were rigorously suppressed.

At the conquest of Goa by Affonso de Albuquerque in 1510 the village communities, among which the inhabitants were distributed, were found to be in the enjoyment of certain immunities from taxation and other privileges. Albuquerque carefully maintained the constitution of the villages, and avoided all appearance of fresh taxation. The same policy was followed by his successors; and in 1526 a register was compiled, called *foral dos usos e costumes*, containing the peculiar usage and customs of the communities, and the privileges enjoyed by them from time immemorial. This register served as a guide-book to subsequent administrators. But in time the communities were burdened with additional imposts, and placed under certain restrictions. At present they are under the supervision of the Government, which appoints in each district (*concelho*) of the Velhas Conquistas an officer called Administrador das Communidades, to watch rigidly over their proceedings. They are precluded from spending even the smallest sum without Government sanction, and have to pay certain contributions to the parish churches. Each village community has a tax-collector (*sacador*) and a clerk (*escrivão*). There is, however, no village headman. On questions affecting the interests of a whole village, a sort of *panchāyat* or council is held, composed of one or more members of each clan (*vangor*), and the decisions are determined by the majority of votes. In the Velhas

Conquistas a great portion of the land is held by the village communities, which, after paying the rent and other Government taxes, divide the annual produce among themselves; while in the Novas Conquistas the lands are distributed among the *vangors*, who cultivate them and enjoy their net produce. The total number of village communities is 222.

Of the entire territory of Goa one-third is said to be under cultivation. A regular land survey is at present in progress, pending the completion of which statistical details of cultivation and crops are not available. The soil is chiefly argillaceous, but also contains light sand and more or less decayed vegetable matter. In many parts it is full of stone and gravel. Its fertility varies according to quality and situation in reference to the supply of water. Manure, consisting of ashes, fish, and dung, is largely employed. As a rule, the Velhas Conquistas are better cultivated than the Novas Conquistas. In both these divisions of the Goa territory a holding of fifteen or sixteen acres would be considered a good-sized farm, though the majority of holdings are of smaller extent. Agriculture.

The staple produce of the country is rice, of which there are two harvests: the winter crop, called *sorodio*; and the summer crop or *vangana*, raised by means of artificial irrigation from the rain-water accumulated in reservoirs, ponds, and wells. For the *sorodio* crop the field is ploughed before the commencement of the monsoon, the seed scattered in May or June, and the crop harvested in September; while as regards the *vangana*, the ploughing operations begin in October, the sowing in November, and the harvesting in February. Rice is cultivated in low lands (*cazana* or *cantor*) situated near the banks of rivers, slopes of hills (*molloy*), stiff grounds (*dulpan* or *dulip*), and sandy soils (*quero*). The quantity of rice produced is barely sufficient to meet the local demand for two-thirds of the year. Next to rice, the culture of coco-nut palms is deemed most important, from the variety of uses to which the products are applied. They grow in luxuriant groves on all lands not hilly or serviceable for the production of rice, and along the sea-coast. Areca palms are chiefly cultivated in the Novas Conquistas on lands irrigated from rivulets. Hilly places and inferior soils are set apart for the cultivation of such cereals as *nachinim* (*Dolichos biflorus*), *urd* (*Phaseolus radiatus*), *kulita* (*Dolichos uniflorus*), *orio* (*Panicum italicum*), *mūng* (*Phaseolus Mungo*), *tori* (*Cytisus Cajan*). Of fruit trees, the most important are mango, jack, and cashew. Among the various kinds of vegetables are potato, radishes, yams, melons,

cucumber, *bendes* (*Abelmoschus esculentus*), &c. Besides these, chillies, ginger, turmeric, onions, and certain vegetables of daily consumption are extensively cultivated in some villages.

The condition of the agricultural classes in the Velhas Conquistas has improved during the last thirty years, owing partly to the general rise in price of all kinds of agricultural produce, and partly to the current of emigration to British territories. In the Novas Conquistas, however, the cultivators are said to have been reduced to great want and misery through the oppression of the landowners.

There is a branch of the Banco Nacional Ultramarino of Lisbon at Panjim. Money can be borrowed from wealthy proprietors or religious confraternities at five per cent. In districts inhabited by Hindus, however, the current rate of interest is about ten per cent. Landowners not infrequently advance petty sums, or their equivalent in kind, without interest, to such of the cultivators or labourers as are their dependents or live in their 'oarts' (*palmares*), deducting the debt by monthly instalments from the wages due. In the Novas Conquistas the rate of interest charged for an advance of grain is generally half as much as the value of the advance.

Forests.

Stately forests are found in the Novas Conquistas. The 'reserved' and other forests scattered over an area of 30,000 hectares or 116 square miles have an aggregate value of 70 lakhs, according to the Report of the Forest Committee. The wasteful practice of *kumri* or shifting cultivation has denuded them of valuable trees, but this form of tillage is now kept under strict control by the state. In 1903-4 the total revenue derived from the forests, excluding timber supplied to Government for state works, was Rs. 24,000, while the expenditure amounted to Rs. 10,500.

Minerals.

Iron is found at Satāri, Pernem, and especially in the district of Zambaulim. Two claims to work mines in the Sanghem district have been registered, but have not yet been definitely allowed.

Commerce and manufactures.

In the days of its glory Goa was the chief entrepôt of commerce between the East and West, and was especially famous as the centre of the trade in horses with the Persian Gulf. But with the downfall of the Portuguese empire it lost its commercial importance, which began to decline after the fall of Vijayanagar, and its trade has now dwindled into insignificance. Few manufacturing industries of any importance exist; but the country is not devoid of skilful artisans, such as goldsmiths, carpenters, blacksmiths, shoemakers, &c. Some of the articles

produced are disposed of privately, while others are exposed for sale at the annual and weekly fairs held in various places. The principal exports are coco-nuts, betel-nuts, mangoes, water-melons, jack and other fruits, cinnamon, pepper, salted fish, gum, coir-work, firewood, fowls, and salt. Of these, the last forms one of the principal sources of profit, the numerous salt-pans that exist yielding a large quantity of salt over and above the local demand. The chief articles imported are: rice, cloth, refined sugar, wines, tobacco, glass-ware, hardware, and other miscellaneous goods. The total imports by land and sea into Goa in 1903-4 were valued at 50 lakhs, and the exports at 14 lakhs. The value of the imports largely exceeds that of the exports, thus causing a drain of money which would certainly have materially affected the financial condition of Goa, had not a stream of coin flowed constantly into the country from the savings of those of its inhabitants who reside temporarily in British territory. In 1903-4 the customs revenue amounted to 5 lakhs. The total number of vessels of every kind that entered the port of Goa in the same year was 2,874, while the number of those that left was 2,814.

Communications. A line of railway now connects Marmagao with the Southern Mahratta Railway, the length of line to Castle Rock being 51 miles, of which 49 miles lie within Goa territory. Several new roads have recently been made, and others are in course of construction. There are 19 roads, complete and incomplete. Of these, the chief runs northwards from Verem, opposite Panjim, through the villages of Pilerne, Saligao, Parra, Māpuça, and Assonora, meeting at Sankarwalle the road constructed in British territory. There are also several municipal roads.

There is one telegraph office in Goa, at Panjim, maintained jointly by the British and Portuguese Governments. The head-quarters of the post office are also at Panjim, with branches at Margao, Māpuça, Ponda, Bicholim, Chinchinim, and Pernem.

Famine. Goa is seldom subject to great floods, though some of its districts occasionally suffer from partial inundation during heavy rainfall. In times of drought the agricultural classes sustain heavy loss, but the people at large are supplied, though at great cost, with rice from British territory. It is only when a general famine occurs beyond the frontier that signs of extreme distress are visible among the inhabitants of Goa. Formerly the country was frequently subject to famine. The years 1553, 1570, and 1682 are said to have been seasons of great scarcity. In subsequent years the constant incursions of the Marāthās occasioned much distress.

Adminis-tration.

Goa is regarded as an integral portion of the Portuguese empire, and, with Damān and Diu, forms, for administrative purposes, one province subject to a Governor-General, who is appointed directly by the King of Portugal, and holds his office for five years. Besides his civil functions, he is invested with the supreme military authority in the province. His personal staff consists of two aides-de-camp, and a secretary styled the Chief Secretary of the Governor-General of Portuguese India, and likewise appointed by the King. Although he is the chief executive functionary, the Governor-General cannot, except in cases of emergency, impose new taxes, or abolish the existing ones, contract loans, create new appointments, or reduce the old ones, retrench the salaries attached to them, or generally incur any expenses not sanctioned by law; nor can he, under any circumstances, leave the province without the special permission of the Home Government.

In his administration the Governor-General is aided by a Council composed of the Chief Secretary, the Archbishop of Goa (or, in his absence, the chief ecclesiastical authority exercising his functions), the Judges of the High Court, the two highest military officers in Goa, the Attorney-General, the Inspector da Fazenda, the Health Officer, and the President of the municipal chamber or corporation of the capital (Camara Municipal das Ilhas). As a rule, all the members give their opinions, and vote in every matter on which they are consulted by the Governor-General. There are also five other Juntas or councils, called the Junta Geral da Provincia (general council of the province), the Conselho da Provincia (the council of the province), the Conselho Technico das Obras publicas, the Conselho-inspector de Instrucção publica, and the Conselho da Agricultura. The first of these is composed of the Chief Secretary, the Archbishop or his substitute, the Attorney-General, the Inspector da Fazenda, the Director of Public Works, the Health Officer, a Professor of the Medico-Surgical College, a Professor of the Lyceum, a Professor of the Normal School, and a representative from each of the municipal corporations of the province. This Junta discusses and decides all questions relating to public works, and the expenses necessary for their execution, the preservation of public health, the establishment of schools, the alteration of customs duties, &c. The Governor-General is empowered to suspend the operation of any resolution passed by this Junta, pending a reference to the Home Government. The other councils are of inferior importance.

In addition to this machinery of administration, there are subordinate agencies for the local government of the different districts. In connexion with these agencies, the entire territory of Goa is divided into two tracts, known as the Velhas and Novas Conquistas (old and new conquests). The former tract is subdivided into three districts (*concelhos*), namely, the Ilhas, Bārdez, and Salsette; and each of these again into parishes, of which there are 85 in all. Every district has a municipal corporation, and is placed under the charge of a functionary called Administrador de Concelho. This officer is appointed by the Governor-General, and is entrusted with duties of an administrative character, besides those connected with the public safety and health. Every parish has likewise a minor council, called Junta da Parochia, presided over by a magistrate, called *regedor*, whose duties are to inspect and direct the police establishments of the parish, keep a strict surveillance over liquor-shops, gaming-houses, &c., open wills and testaments, and report generally every important occurrence to the Administrador. Similarly in each of the seven divisions into which the Novas Conquistas are subdivided there is an officer called Administrador de Concelho. Of the above-named seven divisions, the first is Pernêm; the second, Sanquelim; the third, Ponda; the fourth, Sanguem, or Astagrār and Embarbācem; the fifth, Quepem, or Bally, Chandrowadi, and Cacora; the sixth, Canacona with Cabo de Rāma; and the seventh Satāri, which forms a military command and is administered by the military commandant in the same way as other divisions by the Administrador. Each of the subdivisions of the Velhas and Novas Conquistas is also known by the name of 'province.' The offices of Governor, Chief Secretary, Attorney-General, and some other important ones are almost invariably filled by Europeans. As stated above, there are three municipalities in the Velhas Conquistas, the chief being that of the Ilhas. The municipal receipts in 1903-4 amounted to 1½ lakhs.

Goa and its dependencies in India, namely, Damān and Diu, together with Maçao and Timor, constitute for judicial purposes but one judicial district. This district is divided into *Comarcas*, which are subdivided into *Julgados municipaes* and *Juizes populares*. In each of the five *Julgados* of Portuguese India there is a judge, with an establishment consisting of a sub-delegate of the Attorney-General, one clerk, two or more bailiffs, and a translator or interpreter. All these officials are paid by Government, and are besides entitled to fees, Civil and criminal justice.

except the clerks, who receive fees only. The judge holds his sitting twice a week for the purpose of deciding civil and criminal cases within his jurisdiction.

There are 111 *Juizes populares* and 6 *Juizes de direito de comarca*. The *Juizes de direito* have a staff composed of a delegate of the Attorney-General, three clerks, one interpreter and translator, an accountant, four or five bailiffs, all of whom, except the clerks and accountant, receive, in addition to certain fees, fixed salaries. A judge of this class exercises ordinary and extraordinary jurisdiction in matters both civil and criminal. He is required to go on circuit annually to the *Julgados*, where he hears complaints against subordinate functionaries, examines their proceedings and registers, and sometimes tries those suits within his jurisdiction which may not have been submitted to his tribunal by the ordinary judges. The jurisdiction and duties of the *Juizes de direito* and *Juizes municipaes e populares* are regulated by special laws.

The supervision of all judges is entrusted to a High Court (Tribunal da Relação), whose seat is in Nova Goa (New Goa), in consequence of which it is sometimes called Relação de Nova Goa. This court consists of a chief justice (Presidente) and four puisne judges. The High Court has jurisdiction, both ordinary and extraordinary, in all cases, whether civil or criminal, and is invested with appellate powers. Its decisions are final in all suits except those relating to property exceeding in value Rs. 1,500, in which an appeal lies to the Supreme Tribunal of Portugal.

Revenue. The total revenue in 1903-4 was over 20 lakhs and the expenditure nearly 20 lakhs. The sources of revenue are: land tax, customs and postal dues, seal and stamp duties, tobacco licences, taxes on liquor-shops, &c. Goa contains no mint; and the only revenue from salt is very trifling, derived from eight pans at Diu.

Army and police. Previous to 1871 Goa possessed a comparatively large native army; but owing to the rebellion which broke out in that year it was disbanded, and a battalion composed wholly of Europeans was obtained from Portugal. The force consisted in 1904 of 2,730 men of all ranks. The strength of the police is 390 men. The total expenditure on the military and police forces is about one lakh.

Education. Of late years education has made considerable progress in Goa. In 1900 10 per cent. of the total population were literate. In 1903-4 there were 121 primary schools, of which 98 were public and 23 private, with 4,945 pupils, of whom

1,255 were girls. The number of pupils in the National Lyceum or college at New Goa and several other schools of secondary education was 305. The Medico-Surgical College was attended by 88 pupils. Besides these, several other schools are under ecclesiastical jurisdiction. In addition to the Government Gazette, called *Boletim Official*, there are twelve periodicals: namely, *O Heraldo*, *A India Portugueza*, *O Ultramar*, *O Crente*, *Noticias*, *Voz do Povo*, *O Indio*, *O Bardezano*, *O Nacionalista*, *O Diario de Goa*, *Echo de la India*, and *Oriente*, all edited in the Portuguese language by natives. There is also an archaeological review, *O Oriente Portuguez*.

There are 3 hospitals, in which 2,631 in-patients were treated in 1904. There are also 3 military hospitals, at Goa, Damān, and Diu. The most important charitable institutions are: the Santa Casa de Misericordia (Holy House of Mercy) at Panjim; Hospicio do Sagrado Coração de Maria (Hospital of the Sacred Heart of Mary) at Margao; and Asylo de Nossa Senhora dos Milagres (Asylum of our Lady of Miracles) at Māpuça. The first dates from the conquest of Goa by the Portuguese, and maintains the hospital at Ribandar and two establishments for the reformation and education of females at Chimbel. Medical.

[D. L. Cottineau de Kloguen, *An Historical Sketch of Goa* (Madras, 1831); J. N. Fonseca, *Historical and Archaeological Sketch of Goa* (Bombay, 1878); A. L. Mendes, *A India Portugueza* (Lisbon, 1886).]

Anjidiv.—An island forming part of the Portuguese Possessions in Western India, situated in 14° 45′ N. and 74° 10′ E., 5 miles south-west of Kārwār in North Kanara District, and within the territorial limits of the Bombay Presidency, with an area of half a square mile. Population (1901), 49. It is irregular in shape, being about one mile from north to south and one-sixth of a mile from east to west. On the east is a small cove giving an anchorage to vessels up to 1,000 tons burden. The island is now almost deserted, owing to its unhealthiness, and contains only a small garrison in the fort, and a few cultivators of coco-nut palms and fruit trees. The rocks are granite and laterite.

Anjidiv seems to be the Aigidioi mentioned by Ptolemy (A. D. 150) and by the author of the *Periplus*. It is next referred to by Ibn Batūta, who landed on the island in 1342. In the fifteenth century Arab traders used Anjidiv as a port of call, and they are said to have seized the island from the Vijayanagar garrison. The connexion of the Portuguese with Anjidiv dates from 1498, when it was visited by Vasco da

Gama; and they established themselves here in 1505 by constructing a fortress. After with drawing temporarily from the island in 1506 the Portuguese resumed possession, and have since held it.

Upon the cession of Bombay island and harbour to the English Crown in 1661, a force of 500 men under Sir Abraham Shipman was dispatched to take possession of the new acquisition. During the delay that occurred in negotiating the transfer, they took up quarters on Anjidiv in 1664, where Sir Abraham and 381 men succumbed to an unhealthy monsoon. In 1682 the present fort was erected, and was held by the Portuguese garrison against the assaults of the Marāthās. The island has been used as a penal settlement for Goa.

Damān.—Portuguese settlement and town in Gujarāt, within Thāna District of the Bombay Presidency, about 100 miles north of Bombay. Including the *pargana* of Nagar Havili, the area is 149 square miles. The settlement of Damān is bounded on the north by the Bhagwān river, on the east by British territory, on the south by the Kalem river, and on the west by the Gulf of Cambay. Damān town is situated in 20° 25′ N. and 72° 53′ E. The settlement is composed of two portions: namely, Damān proper, which is divided by the Damāngangā into *pargana* Naer or Damān Grande, and *pargana* Calana Pavori or Damān Pequeno; and the detached *pargana* of Nagar Havili, separated from it by a narrow strip of British territory, 5 to 7 miles in width, and intersected by the Bombay, Baroda, and Central India Railway. The town of Damān was sacked by the Portuguese in 1531, rebuilt by the natives, and retaken in 1558 by the Portuguese, who made it one of their permanent establishments in India. They converted the mosque into a church, and have since built eight other places of worship. Damān proper lies at the entrance of the Gulf of Cambay, and contains an area of 22 square miles, and 26 villages, with a population (1900) of 17,391. This portion of the settlement was conquered from Bofata on February 2, 1559, by the Portuguese under Dom Constantino de Braganza. The *pargana* of Nagar Havili, situated towards the east, has an area of 60 square miles, with a population (1900) of 24,280, and is likewise subdivided into two parts, called Eteli Pati and Upeli Pati. It was ceded to the Portuguese by the Marāthās, in indemnification for piratical acts committed against a ship flying a flag of the former nation, in accordance with a treaty signed at Poona on January 6, 1780. Damān suffered severely from the plague in 1897 and subsequent years.

The principal rivers are: the Bhagwān, forming the northern boundary of the settlement; the Kalem, running along the southern boundary; and the Sandalkhāl or Damāngangā ('border Ganges'), a deep navigable stream rising in the Ghāts about 40 miles east of Damān proper. All these fall into the Gulf of Cambay. The Damāngangā has a bar at its mouth, dry at the lowest ebb tides, but with 18 to 20 feet of water at high tides. Outside this bar is a roadstead, where vessels of 300 to 400 tons may ride at anchor and discharge cargo. Damān has long enjoyed a high celebrity for its docks and ship-building yards, due chiefly to the excellent teak with which the country is stocked. The climate is generally healthy throughout the year. Physical aspects.

The total population of the settlement in 1900, including absentees and temporary residents, was 41,671. According to the Census of 1850 the population of Damān proper was returned at 33,559; it is now reduced to 17,391. Of the total population, Christians number 1,563. The number of houses amounts to 8,971; but only a very few are of any size or pretensions. The native Christians adopt the European costume. Some of the women dress themselves after the present European fashion, while others follow the old style once prevalent in Portugal and Spain, and wear a petticoat and mantle. Population.

The soil is moist and fertile, especially in the *pargana* of Nagar Havili. The principal crops are rice, wheat, the inferior cereals common to Gujarāt, and tobacco. Despite the ease of cultivation, only one-twentieth part of the territory is under tillage. Agriculture.

The settlement contains no minerals, but possesses stately forests in the *pargana* of Nagar Havili. About two-thirds of these forests consist of teak; the other timber trees include *sadara*, *khair*, *sissoo*, *lāl*, *khair* (*Acacia Sundra*), *tiwas* (*Dalbergia ougeinensis*), *siwana* (*Gmelina arborea*), *dambora* (*Conocarpus latifolia*), *hedu* (*Nauclea cordifolia*), *asana* (*Bridelia spinosa*), *temburni* (*Diospyros montana*), and *babūl*. The forests are not conserved, and the extent of land covered by each kind of timber has not been precisely determined. Forests.

Before the decline of the Portuguese power in the East, Damān carried on an extensive commerce, especially with the eastern coast of Africa, to which the cotton fabrics made in Gujarāt were largely exported in vessels flying the Portuguese flag. From 1817 to 1837 there was a flourishing trade with China in opium imported from Karāchi. But since the conquest of Sind by the British, the transport of opium has been Trade, &c.

prohibited, and thus Damān has been deprived of its chief source of wealth. In old days Damān was noted for its weaving and dyeing. The former industry is still carried on to a limited extent, chiefly by the wives of Musalmān *khalāsis* or sailors, while the latter is almost extinct. The piece-goods, made from a mixture of English and country twist, are of a quality and pattern worn only by the natives of Goa, Mozambique, and Diu, to which places they are exported. Mats and baskets of palm-leaves and bamboo are manufactured on a large scale. A noteworthy feature in connexion with the industrial occupations of the place is its deep-sea fishing. The boats make for the coast of Kāthiāwār, near Diu, where they remain for some months, and return laden with salted fish cured on board. The total imports in 1903–4 were valued at $1\frac{1}{2}$ lakhs, and the exports at Rs. 42,000.

Administration. The territory of Damān forms, for administrative purposes, a single district, and has a municipal chamber or corporation. It is ruled by a Governor invested with both civil and military functions, subordinate to the Governor-General of Goa. The judicial department is superintended by a judge, with an establishment composed of a delegate of the attorney-general, and two clerks. In the *pargana* of Nagar Havili the greater part of the soil is the property of the Government, from whom the cultivators hold their tenures direct. A tax is levied on all lands, whether alienated or the property of the state. There is, however, no fixed rate of assessment, as the tax is regulated by a general estimate of the productiveness of each village.

The total revenue of Damān in 1903–4 amounted to nearly 2 lakhs, of which the larger portion was derived from the *pargana* of Nagar Havili. The chief sources of revenue are land-tax, forests, excise, and customs duties. The expenditure in the same year was $1\frac{1}{4}$ lakhs. The public force, both military and police, consisted of 644 officers and men.

Objects of interest. The settlement of Damān has two forts, situated on either side of the Damāngangā river. The former is almost square in shape, and built of stone. It contains, besides the ruins of the old monastic establishments, the Governor's palace, together with the buildings appertaining to it, military barracks, hospital, municipal office, courthouse, jail, two modern churches, and numerous private residences. On the land side this fort is protected by a ditch crossed by a drawbridge, while at its north-west angle extends the principal bastion, which commands the entrance to the harbour. It is occupied by the Governor and his staff, the military establishments, officers connected

with the Government, and a few private individuals; all are Christians. The smaller fort, which is a more recent structure, is placed by the Portuguese under the patronage of St. Jerome. Its form is that of an irregular quadrilateral, enclosed by a wall somewhat higher than that of the other fort. The principal buildings within it are a church, a parochial house, and a mortuary chapel surrounded by a cemetery. Both the forts have brass and iron cannon on the walls, some of which are mounted, and others either attached to old carriages or lying on the ground.

Diu.—An island forming portion of the Portuguese Possessions in Western India, situated in 20° 43′ N. and 71° 2′ E., and separated from the southern extremity of the peninsula of Kāthiāwār in the Bombay Presidency by a narrow channel through a considerable swamp. Its extreme length from east to west is about 7 miles, and its greatest breadth from north to south 2 miles. The area is 52·5 square kilometres, or 20 square miles. On the north the narrow channel separating it from the mainland is practicable only for fishing-boats and small craft. On the south the face of the island is a sandstone cliff washed by the sea, with deep water close beneath. Several groves of coco-nut palms are scattered over the island, and the hills attain an elevation of about 100 feet. It has a small but excellent harbour, where vessels can safely ride at anchor in 2 fathoms of water. The climate is generally dry and sultry, the soil barren, and water scarce. Agriculture is much neglected. The principal products are: wheat, *jowār*, *nāchni*, *bājra*, coco-nuts, and some kinds of fruit. The entire population of Diu island, according to the Census of 1900, numbered 14,614 persons, of whom 343 were Christians, including 3 Europeans.

The town of Diu stands at the east end of the island, distant 5 miles from Navibandar. In the days of its commercial prosperity, it is said to have contained above 50,000 inhabitants. Some of the dwellings are provided with cisterns, of which there are altogether about 300, for the accumulation of rain-water. Diu, once so opulent and famous for its commerce, has now dwindled into utter insignificance. Not long ago it maintained mercantile relations with several parts of India and Mozambique, but at present its trade is almost stagnant. Besides Diu town there are three large villages on the island: namely, Monakbara, with a fort commanding the channel, on the west; Bachawara, on the north; and Nagwa, with a small fort commanding the bay, on the south. The principal occu-

pations of the inhabitants were formerly weaving and dyeing, and articles manufactured here were highly prized in foreign markets. At present, fishing affords the chief employment to the impoverished inhabitants. A few enterprising persons, however, emigrate temporarily to Mozambique, where they occupy themselves in commercial pursuits, and, after making a sufficient fortune, return to their native place to spend the evening of their lives. The total revenue of Diu in 1903–4 was Rs. 73,000; in the same year the imports were valued at more than 2½ lakhs and the exports at about 1¼ lakhs.

The Governor is the chief authority in both the civil and military departments, subordinate to the Governor-General of Goa. The judicial department is under a *Juiz municipal*, with a small establishment to carry out his orders. For ecclesiastical purposes the island is divided into two parishes, called Sé Matriz and Brancawara, the patron saints being St. Paul and St. Andrew. Both parishes are under the spiritual jurisdiction of a dignitary styled the Prior, appointed by the Bishop of Damān. The office of Governor is invariably filled by a European, other posts being bestowed on natives of Goa. The public force consists of 79 soldiers, including officers. The present fortress of Diu was reconstructed, with several later improvements, after the siege of 1545, by Dom João de Castro. It is an imposing structure, situated on the extreme east of the island, and defended by several pieces of cannon, some of which are made of bronze, and appear to be in good preservation. It is approached by a permanent bridge and entered through a gateway, which bears a Portuguese inscription and is defended by a bastion called St. George. The castle is separated from the other fortifications by a deep moat cut through the solid sandstone rock, through which the sea had free passage at one time, but now it enters only at the highest tides. Towards the west of the fortress lies the town of Diu, divided into two quarters, the Pagan and the Christian. The former covers two-thirds of the total area, and is intersected by narrow and crooked roads, lined with houses. Besides the villages on the island already named, the Portuguese possess the village of Gogola, towards the north, in the Kāthiāwār peninsula; and the fort of Simbor, conquered in 1722, and situated on an islet about 12 miles distant from the town.

Diu town was formerly embellished with several magnificent edifices, some of which are still in existence. Of these the most noteworthy is the college of the Jesuits, erected in 1601,

and now converted into a cathedral, called Sé Matriz. Of the former convents, that of St. Francis is used as a military hospital; that of St. John of God, as a place of burial; that of St. Dominic is in ruins. The parochial hall of the once beautiful church of St. Thomas serves as a place of meeting for the municipal chamber. The mint, where, in the days of the greatest prosperity of the Portuguese, money of every kind used to be coined, is now gradually falling into decay. The arsenal, once so renowned, contains a few insignificant military stores. Besides these buildings, there are the Governor's palace, a prison, and a school.

Owing to the great advantages which the position of Diu afforded for trade with Arabia and the Persian Gulf, the Portuguese were fired from an early period with the desire of becoming masters of this island; but it was not until the time of Nuno da Cunha that they succeeded in obtaining a footing in it. When Bahādur Shāh, Sultān of Gujarāt, was attacked by the Mughal emperor Humāyūn, he concluded a defensive alliance with the Portuguese, allowing them to construct, in 1535, a fortress on the island and garrison it with their own troops. This alliance continued till 1536, when both parties began to suspect each other of treachery. In a scuffle which took place on his return from a Portuguese ship, whither he had proceeded on a visit to Nuno da Cunha, the Gujarāt monarch met his death in 1537. In the following year the fortress was besieged by Mahmūd III, nephew of Bahādur Shāh; but the garrison, commanded by Antonio de Silveira, foiled the attempts of the enemy, and compelled him to raise the siege. Subsequently, in 1545, Diú was again closely invested by the same ruler, but was obstinately defended by the gallant band within, under the command of Dom João Mascarenhas. While the Muhammadans were still under the walls, Dom João de Castro landed in the island with large reinforcements, and, immediately marching to the relief of the place, totally routed the army of the Sultān of Gujarāt in a pitched battle. This heroic defence and the signal victory gained by De Castro, which form a brilliant page in the annals of the Portuguese empire in the East, were followed by the acquisition of the entire island. In 1670 a small armed band of the Arabs of Maskat surprised and plundered the fortress, retiring with the booty they had acquired. Since this event, nothing worthy of note has occurred in connexion with the Portuguese settlement.

Goa City.—Capital of the Portuguese territory of the same

name, situated in 15° 30′ N. and 73° 57′ E., near the mouth of the Mandāvi river. Population of Old Goa (1900), 2,302, dwelling in 500 houses; of Panjim or New Goa, 9,325, dwelling in 1,735 houses. Goa is properly the name of three cities, which represent successive stages in the history of Western India. The earliest of the three was an ancient Hindu city, before the invasion of the Muhammadans; the second, known as Old Goa, was the first capital of the Portuguese, and is still the ecclesiastical metropolis of Roman Catholic India; the third, commonly called Panjim, is the present seat of Portuguese administration. The original city of Goa (Goa Velha), built by the Kadambas, was situated on the banks of the river Juāri. No traces of buildings exist at this day. The next town of Goa (Velha Cidade de Goa), generally known to foreigners as Old Goa, situated about 5 miles to the north of the Hindu capital, was built by the Muhammadans in 1479, nineteen years before the arrival of Vasco da Gama in India. This famous city, conquered by Albuquerque in 1510, became the capital of the Portuguese empire in Asia; as such, it was once the chief emporium of commerce between the East and the West, and enjoyed the same privileges as Lisbon. It reached the climax of its splendour during the sixteenth century; but with the decline of the Portuguese power in the following century, it gradually began to lose its significance in every respect, save as an ecclesiastical metropolis.

The frequent plagues by which the population was repeatedly thinned, together with the removal of the seat of Government to Panjim, and the suppression of the religious orders, contributed finally to effect its complete downfall. Instead of the 200,000 inhabitants which once formed its population, hardly 2,000 poverty-stricken creatures remain to haunt the few ecclesiastical edifices still standing. Foremost among the surviving edifices is the cathedral dedicated to St. Catherine by Albuquerque, in commemoration of his entry into Goa on the day of her festival. Built as a parochial church in 1512, it was reconstructed in 1623 in its present majestic proportions, having been about a century before elevated to the rank of a primatial see, which it has ever since retained. Service is regularly held every day by the canons attached to the cathedral. The Convent of St. Francis, originally a Muhammadan mosque, converted into a church by the Portuguese, was the first structure consecrated to Christian worship in Goa. Its chief portal, curious as being the earliest of its kind in Portuguese India, has been preserved intact

to this day, though the convent itself was rebuilt in 1661. The Chapel of St. Catherine was erected in 1551 on the site of the gate of the Muhammadan city through which Albuquerque entered. The Church of Bom Jesus, commenced in 1594 and consecrated in 1603, is a splendid edifice, enjoying a wide renown for the magnificent tomb holding the remains of the apostle of the Indies, St. Francis Xavier, the events of whose life are represented around the shrine. The Convent of St. Monica, commenced in 1606 and completed in 1627, was constructed for a community of nuns, the last of whom died in 1885. The Convent of St. Cajetan, erected in the middle of the seventeenth century by the Order of the Theatines, is noted for its resemblance to St. Peter's at Rome, and is in excellent preservation.

Of the other historical edifices with which Old Goa was formerly embellished, few traces remain to give a conception of their pristine beauty and magnificence. The once renowned palace of the viceroys, the spacious custom-house, and many other public buildings have been completely destroyed. The College of St. Roque, belonging to the Order of Jesus, the Senate-house, the once famous Palace of the Inquisition, the Church of the Miraculous Cross, the College of St. Paul, the Hospital of St. Lazarus, the Church and Convent of St. Augustine, as well as the college of the same name close by, the arsenal, the chapel of the Cinco Chagas (the 'five wounds'), and the ecclesiastical jail are all in ruins. The sites of the vanished buildings have been converted into coconut plantations, the ruins are covered with shrubs and moss, and the streets are overrun with grass. But though Old Goa has long since lost its civil importance, forming at present only a suburb of Panjim, its ecclesiastical influence as the see of the Primate of the East still remains; and, as long as it can boast of its noble monuments of Christian piety, and retains the shrine of the great Eastern evangelist, it will not cease to attract pilgrims from the most distant parts of the Catholic world.

The history of Goa city has been given in the article on GOA SETTLEMENT. As far back as 1759, the ruin of the old city was complete. The Governor changed his residence to Panjim, near the mouth of the river, and in the same year the Jesuits were expelled. With them went the last sparks of commercial enterprise. In 1775 the population, which at the beginning of the century had numbered nearly 30,000, was reduced to 1,600, of whom 1,198 were Christians. Goa remains in ruins

to this day. Every effort to repeople it has failed, and Old Goa is now a city of fallen houses and of streets overgrown with jungle. Almost the only buildings that survive are the convents and churches, with miserable huts attached. In 1827 the Superior of the Augustinian Convent thus wrote: 'Il ne reste plus de cette ville que le sacré : le profane en est entièrement banni.' The stately mansions and magnificent public buildings of Old Goa are now heaps of bricks covered with rank grass, and buried in groves of coco-nut palms.

'The river,' wrote Dr. Russell in 1877, 'washes the remains of a great city—an arsenal in ruins; palaces in ruins; quay walls in ruins; churches in ruins; all in ruins. We looked and saw the site of the Inquisition, the bishop's prison, a grand cathedral, great churches, chapels, convents, religious houses, on knolls surrounded by jungle. We saw the crumbling masonry which once marked the lines of streets and enclosures of palaces, dockyards filled with weeds and obsolete cranes.'

New Goa, the present capital of Portuguese India, comprehends Panjim and Ribandar, as well as the old city of Goa, and is 6 square miles in extent. It is situated on the left bank of the Mandāvi river, at a distance of about 3 miles from its mouth. The suburb of Ribandar is connected with the central quarter of Panjim by a causeway about 300 yards long, through which lies the main road leading to Old Goa. Panjim occupies a narrow strip, enclosed by the causeway on the east, the village of St. Ignez on the west, the river on the north, and a hill which walls it on the south. In the last century it was a miserable village, inhabited by a few fishermen dwelling in *cadjān* huts, and remarkable only for the fortress built by Yūsuf Adil Shāh, which is now transformed into a viceregal palace. As in the case of Bombay City, the surface has been gradually formed by filling up hollows and reclaiming large tracts of marshy land.

Panjim was selected as the residence of the Portuguese Viceroy in 1759, and in 1843 it was formally raised by royal decree to rank as the capital of Portuguese India. From the river the appearance of the city, with its row of public buildings and elegant private residences, is very picturesque; and this first impression is not belied by a closer inspection of its neat and spacious roads bordered by decent houses. Of public structures, the most imposing are the barracks, an immense quadrangular edifice, the eastern wing of which accommodates the Lyceum, the Public Library, and the Government Press. The square facing this wing is adorned with a life-size statue of Albuquerque standing under a canopy. The other buildings

include the cathedral, the viceregal palace, the high court, the custom-house, the municipal chamber, the military hospital, the jail, the accountant-general's office, and the post office. For trade, &c., *see* GOA SETTLEMENT.

Māpuça.—Chief town in Bārdez district, Goa, Portuguese India, situated in 15° 36′ N. and 73° 52′ E., about 8 miles north of Panjim. Population (1900), 10,733. Māpuça was celebrated in ancient times for the great weekly fair on Fridays. It takes its name, according to some, from *māp*, 'measure,' and *sa*, 'to fill up,' that is, the place of measuring or selling goods. It is now one of the most important commercial places in the territory of Goa. The church, dedicated to Our Lady of Miracles, was built in 1594, and is held in great veneration not only by Christian converts but also by Hindus. On the feast of Our Lady of Miracles men of every class and creed come in crowds, bringing offerings to the Virgin. On the same occasion a fair is held, which lasts five days. Besides the church, Māpuça contains six chapels, an asylum for the poor and destitute, a town hall, and a jail. To the west of Māpuça are military barracks, where a regiment was stationed from 1841 to 1871, when it was disbanded. The barracks are now occupied by the police force, post office, and schools.

Margao.—Town in Salsette district, Goa, Portuguese India, situated in 15° 18′ N. and 74° 1′ E., in a beautiful plain in the centre of the district, on the bank of the Sal river, and about 16 miles south-east of Panjim. It is a station on the West of India Portuguese Railway. Population (1900), 12,126. Margao, according to tradition, was one of the early seats of the Aryan settlers of Goa, and the site of the chief *math* or convent, whence its name Mathagrāma, or 'the village of the convent,' corrupted into Margao. Though for some time exposed to the incursions of Muhammadans and Marāthās, Margao was inhabited by many rich families. Of late many public and private buildings have been erected. Christianity was introduced into Margao in 1560, and the first church was built in 1565. The Jesuits in 1574 built a college, which was subsequently removed to Rachol, a village about 6 miles north-east. Margao contains a town hall, Government schools, a theatre, and an asylum. The military barracks, built in 1811, were formerly occupied by a regiment, but at present by the police, a small military detachment, and the post office. From Margao a good road leads south to Kārwār, the chief town of the adjacent British District of North Kanara, distant 44 miles.

Marmagao.—Peninsula, village, and port in Salsette district,

Goa, Portuguese India, and the terminus of the West of India Portuguese Railway, situated in 15° 25′ N. and 73° 47′ E. The peninsula of Marmagao is situated on the southern side of the harbour of Goa, on the left bank of the Zuāri river, and is connected with the mainland by a narrow strip of sand about a quarter of a mile broad, and elevated about ten feet above the sea. The whole peninsula is composed of laterite, and the shore is fringed with heavy boulders, which have crumbled and fallen from the cliff. The summit of the peninsula is a table-land, about 180 to 200 feet high, composed of bare laterite covered with loose stones, with patches of grass. The slopes of the hill, which are steep, and present a bold appearance sea-ward, are covered with thick jungle and scrub.

The village and port of Marmagao are situated at the eastern extremity of the peninsula, about 5 miles south of Panjim. Population (1900), 750, mostly Christians. In the last half of the seventeenth century the Portuguese Viceroy, the Count of Alvor, resolved to abandon Goa, and transfer the seat of the Government to the peninsula of Marmagao. In 1684–5 the foundations of a new capital were laid and the work progressed favourably. In 1686 the works were stopped by his successor. During the next fifteen years orders were repeatedly received from Portugal to demolish the public buildings of Goa, and to apply the materials to the construction of new ones at Marmagao, while the Viceroys were directed to transfer their residence to that place. During the Viceroyalty of Caetano de Mello e Castro, the works were pushed on with vigour, and several buildings were completed, among which may be mentioned the palace and the hospital. The Viceroy himself resided at Marmagao for a few months in 1703. Suddenly the works were stopped by a royal letter of March 8, 1712. In 1739, when Goa was in danger of falling into the hands of the Marāthās, the nuns and other helpless members of the population sought refuge at Marmagao.

The Government buildings are now mere heaps of ruin. The only relic of importance is a fine old church. The fortress has been converted into an hotel. In anticipation of the trade which, it is hoped, will be developed, now that goods can be shipped direct from Marmagao to Europe, measures have been taken to improve the harbour. Since 1903 the management of the port, as well as of the railway, has been entrusted to the Southern Mahratta Railway Company. The imports in 1903–4, by sea and land, amounted to close on 35 lakhs, while the exports were valued at 11 lakhs.

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Oxford: HORACE HART, Printer to the University